

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MARYLAND**

MICHAEL LEACOCK,

*

Plaintiff,

*

v.

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Civ. No. DLB-22-1306

IONQ, INC., *et al.*,

*

Defendants.

*

MEMORANDUM OPINION

Michael Leacock, on behalf of himself and others similarly situated (collectively, “the plaintiffs”), filed this securities class action against IonQ, Inc. (“IonQ”), two IonQ officers (collectively, “the IonQ defendants”), dMY Technology Group, Inc. III (“dMY”), and five dMY officers (collectively, “the dMY defendants,” and collectively with the IonQ defendants, “the defendants”). IonQ develops, manufactures, and operates quantum computing hardware and software. dMY was a special purpose acquisition company founded for the purpose of effecting a merger with a technology-sector business; its merger with IonQ closed on September 30, 2021. Leacock, on behalf of shareholders who acquired IonQ stock between March 7, 2021 and May 2, 2022 (the “Class Period”), asserts violations of sections 10(b), 14(a), and 20(a) of the Securities Exchange Act of 1934, 15 U.S.C. §§ 78j(b), 78n(a), & 78t(a) (2018) (“the Exchange Act”), and two regulations promulgated thereunder, 17 C.F.R. §§ 240.10b-5 (2022) (“Rule 10b-5”) & 240.14a-9(a) (“Rule 14a-9”). ECF 64. Generally, the plaintiffs allege the defendants defrauded them by misrepresenting the existence and attributes of IonQ’s quantum computing systems and by concealing that a related third party, not cloud-based customers, was the source of IonQ’s much-hyped tripled contract bookings in order to artificially inflate IonQ’s share prices until the

shareholders voted to approve the merger and the lock-up period that prevented the defendants from selling their shares expired. The plaintiffs contend that the post-merger disclosure of the alleged misrepresentations by a short-seller report and the defendants' response to the report caused the prices of IonQ stock to drop sharply, resulting in shareholder losses.

The IonQ Defendants and the dMY Defendants each moved to dismiss the amended complaint under Rules 12(b)(6) and 9(b) of the Federal Rules of Civil Procedure and the Private Securities Litigation Reform Act of 1995 ("PSLRA"). ECF 75, 75-1, 77, 77-1. The plaintiffs submitted an omnibus brief in opposition to both motions. ECF 91. The IonQ defendants and the dMY defendants each replied. ECF 92 & 94. The IonQ defendants also submitted a request for judicial notice. ECF 76. That motion is fully briefed. ECF 90 & 93. No hearing is necessary. *See* Loc. R. 105.6 (D. Md. 2023). For the following reasons, the request for judicial notice is granted in part and denied in part. Both motions to dismiss are granted.

I. Background¹

A. Quantum computing

Quantum computing is an emerging and highly complex technology based on quantum mechanics, a subset of physics that operates at the atomic level. Quantum computers are fundamentally different from "classical" computers used today in that they "use the laws of quantum mechanics . . . to represent units of information, and those units of information interact with specially designed hardware and software to solve complex problems." ECF 64, ¶ 39. A quantum computer processes information using qubits, which (unlike a classical bit) can exist in a "superposition" of 0, 1, and any value in between. *Id.* ¶ 40. Qubits also can exist in a state of

¹ This background section draws from the amended complaint and documents incorporated into the amended complaint by reference or judicially noticed.

“entanglement,” in which one qubit instantly can share its information with another “entangled” qubit, thus exponentially accelerating computing performance far beyond classical computing capacity. *Id.* ¶ 41.

There are numerous approaches to quantum computing. One is the “trapped ion” approach, in which a quantum computer traps ions “in free space using electromagnetic fields, and qubits are stored in the electronic states of each ion. Quantum information is then transferred through the qubits in each ion.” *Id.* ¶ 42. The functionality of a trapped ion system is determined not by the number of qubits suspended in ions in the ion trap, but rather by the number of qubits that are entangled with each other in “gates.” *Id.* ¶¶ 41–43. Other performance metrics also indicate whether a system is useful, including “‘gate fidelity’ (a measure of reliability of the gate operation), ‘gate speed’ (the speed of the operation), ‘coherence time’ (how long a qubit remains in its state of quantumness) and ‘error rate’ (how reliable the qubit is).” *Id.* ¶ 44. To function effectively, a quantum computer must have 99.98% or 99.99% fidelity. It also must have effective and efficient error correction. The quantum computing industry has not yet delivered a system that reaches “fault tolerant quantum computing”—a quantum computer able to deliver “reliable and consistent performance to run complex problems successfully.” *Id.* ¶ 48.

B. IonQ

IonQ is a quantum computing company. In its pre-merger form (which the complaint refers to as “Legacy IonQ”), it was founded in 2015 by two researchers and academics, Chris Monroe and Jungsang Kim. The company is led by defendant Peter Chapman, who has served as its president, chief executive officer, and member of the board of directors since May 2019.

Defendant Thomas Kramer has served as IonQ’s chief financial officer since February 2021 and as its secretary from late September 2021 until March 2022.

IonQ develops quantum computers using the “trapped ion” approach. It leases its corporate headquarters and its research and development and manufacturing facilities from the University of Maryland (“UMD”). In 2016, Legacy IonQ entered into a License Agreement with both UMD and Duke University that allowed it to use work performed by Monroe and Kim at these universities to attempt to commercialize ion trap quantum computing systems. In return, the universities received shares of common stock in the company.²

In 2019, Legacy IonQ began allowing customers to pay for access to its 11-qubit quantum computer through a cloud platform. In October 2020, Chapman posted an article to Legacy IonQ’s website announcing that its new quantum computing system “smashe[d] all previous records with *32 perfect qubits with gate errors low enough to feature a quantum volume of at least 4,000,000.*” *Id.* ¶ 67.³ A press release issued that same day quoted Chapman as saying that “[i]n a single generation of hardware, *we went from 11 to 32 qubits*, and more importantly, *improved the fidelity required to use all 32 qubits.*” *Id.* ¶ 68. The announcements also indicated that the

² These shares later converted into shares of IonQ when the merger with dMY closed.

³ Bold and italicized emphases in quotes are in the amended complaint, unless otherwise noted. The plaintiffs liberally bold and italicize quotes, even when they are not alleging the bolded and italicized language is a false or misleading statement. This approach is less than ideal when a court is attempting to identify the statements that are allegedly false and misleading. The Court will assume, as the defendants did without objection by the plaintiffs, that the plaintiffs challenge the bolded, italicized language in the amended complaint at ¶¶ 155–220 and the pictures referenced therein. *See* ECF 75-1, at 30 n.17.

32-qubit system would first be available to customers via private beta before being commercially available via the cloud.

C. dMY

dMY was a special purpose acquisition company (“SPAC”) founded by defendants Niccolo De Masi and Harry L. You for the purpose of effecting a merger with a technology-sector business. A SPAC is a company incorporated to go public in an Initial Public Offering (“IPO”), find a private company to merge with, and thereby effectively bring that private company public without it having to undergo the IPO process. When a SPAC first is incorporated, a small group of initial investors, known as “founders,” own a portion of its securities, called “founders’ shares.” The SPAC then sells a much larger portion of its securities to outside investors during the IPO. The SPAC must consummate a merger within two years or else it dissolves and the IPO investors’ funds are returned. Once a SPAC identifies a private company to merge with, it presents the proposed merger to stockholders for approval. If the stockholders approve the merger, the founders must wait until a one-year “lock-up period” expires before they may sell founders’ shares.

On September 14, 2020, dMY’s sponsor—a limited liability company (“LLC”) that was managed by You and of which De Masi was a member—subscribed for 7,187,500 founders’ shares for a total price of \$25,000. The next month, the sponsor transferred 25,000 founders’ shares each to defendants Darla Anderson, Francesca Luthi, and Charles E. Wert. Anderson, Luthi, and Wert served as directors of dMY from November 2020 until the eventual merger.

dMY went public in an IPO on November 17, generating gross proceeds for the SPAC of \$300 million. When the IPO closed, dMY sold 4 million warrants—rights to purchase additional stock in the future for a fixed price—to the sponsor LLC; the warrants could be exercised only if

dMY successfully merged with another company. After the IPO closed, the sponsor LLC owned 7.5 million founders' shares, representing 20% of the 37.5 million outstanding shares.

D. The merger

Beginning in November 2020, dMY conducted extensive due diligence on Legacy IonQ to determine whether to take it public. On November 13, 2020, De Masi reached out to Chapman to enter into a confidentiality agreement to discuss Legacy IonQ's business. The confidentiality agreement was signed on November 16.

On March 7, 2021, dMY and Legacy IonQ entered into a merger agreement. The next day, before the markets opened, they announced the merger. The announcement detailed that Legacy IonQ would merge with a wholly owned subsidiary of dMY, Ion Trap Acquisition Inc. The surviving entity would continue as a subsidiary of dMY, renamed IonQ. The announcement also stated that if the merger successfully closed, IonQ would receive \$350 million from various investors who had agreed to purchase 35 million shares of IonQ as part of a private investment in public equity. dMY filed a registration statement for the merger with the SEC on March 30, 2021.⁴ It later filed a proxy statement (the "Proxy") with the SEC on August 12, 2021.

Beginning on March 8, the defendants promoted IonQ and its 32-qubit computing system across various fora including public earnings calls, press releases, and presentations to analysts and shareholders. Over the next six months, these promotional statements touted IonQ's 32-qubit system and its expected quantum volume; IonQ's progress in miniaturizing its quantum computing systems; and the error fidelity and error correction capabilities of IonQ's quantum computing systems (particularly the 11-qubit system). Analysts responded favorably to the defendants' statements, raising the price target of dMY's securities. On June 30, for instance, an analyst

⁴ The registration statement was amended three times, on June 17, July 16, and August 4, 2021.

released a report with a “buy recommendation” and a \$20 price target. *Id.* ¶ 88. Starting on September 9—as the merger vote drew nearer—the defendants also promoted IonQ’s tripled contract bookings, a revenue metric that reflects what customers have agreed to pay for future access to the company’s services.

On September 28, 2021, an overwhelming majority of eligible dMY shareholders voted to approve the merger. IonQ began trading publicly on October 1. Its Class A common stock reached a Class Period high of over \$31 per share on November 16, 2021.

E. The Scorpion Report and its aftermath

On May 3, 2022, the research firm Scorpion Capital (“Scorpion”) issued a report (the “Scorpion Report”) purporting to reveal that IonQ’s claims about its quantum computing systems—in particular, its 32-qubit system—were false. The report stated that Scorpion had conducted 25 anonymous research interviews, including with 7 former IonQ employees and executives, 11 quantum computing experts, and five IonQ customers and partners. ECF 75-31, at 4. The former employees told Scorpion that the 32-qubit system “*was totally made up,*” “*doesn’t exist,*” and IonQ is “*trying to cover up that it’s not there.*” ECF 64, at ¶ 10. The former employees also stated that IonQ’s quantum computing systems were “massive ‘elephant’-sized ‘skunkworks’ that [were] nowhere near miniaturization” and that the systems featured a fidelity of 70%. *Id.* ¶ 12. Scorpion claimed it hired experts to access the 11-qubit computer system independently and the experts found that the system returned the correct answer to “1 + 1” only 59% to 70% of the time. *Id.* ¶ 127. In addition, the report emphasized that 70% of IonQ’s 2021 Q3 revenue was funded by

UMD and Duke and stressed that IonQ’s announcement of a tripling in its contract bookings a mere three weeks before the merger closed was, in fact, due to an investment from UMD.

The Scorpion Report also included certain disclaimers. It stated that Scorpion “cannot and does not provide any representations or warranties with respect to the accuracy” of its source materials. ECF 75-31, at 3. It noted that its quotes from experts omit “certain positive comments and experiences with respect to IonQ” and that the information provided by former IonQ employees “may be outdated.” *Id.* It also stated that Scorpion is short IonQ “and therefore stands to realize significant gains in the event that” the price of IonQ’s securities declines. *Id.*

The day before the Scorpion Report was released, on May 2, IonQ’s share price had closed at \$7.86. After the report was released, on May 3, it closed at \$7.15, falling 9.03%. On May 4, the defendants issued a press release in response to the report. On May 5, IonQ’s shares fell to \$6.23 (down 16.9%). By May 11, the shares fell to \$4.34, down 44.8% from the pre-Scorpion Report price. IonQ issued another press release on May 12 criticizing the Scorpion Report.

F. Section 14(a) claim allegations

The plaintiffs allege that the defendants made misleading statements in the Proxy and related materials, failing to disclose to investors that (1) IonQ did not have a 32-qubit system and (2) its systems’ error correction capabilities were worse than described.⁵ These misleading statements and omissions, in the plaintiffs’ view, artificially drove up IonQ’s stock price and misled shareholders, who relied on the Proxy when deciding to invest in IonQ and to approve the merger, only to see IonQ’s share price plummet when the Scorpion Report was released. The

⁵ Proxy materials “are documents provided to investors that help them make informed decisions about their votes.” *San Antonio Fire & Police Pension Fund v. Syneos Health, Inc.*, No. 21-2309, --- F.4th ---, 2023 WL 4688178, at *1 n.2 (4th Cir. July 24, 2023) (citing 17 C.F.R. § 240.14a-3). The plaintiffs challenge these statements in the Proxy and related materials under both Sections 10(b) and 14(a).

plaintiffs contend that “[h]ad the Proxy accurately and truthfully described IonQ’s quantum computing capabilities, that information would have materially affected” investors’ votes. ECF 64, ¶ 275.

The plaintiffs allege that statements in the Proxy about the 32-qubit system were false or materially misleading:

The Proxy stated that “***IonQ’s 32-qubit system, which is an important milestone for IonQ’s technical roadmap and commercialization,*** is not yet available ***for customers*** and may never be available.” These filings further advised that “***IonQ is developing its next-generation 32-qubit quantum computer system,*** which has not yet been made available to customers.”

Id. ¶ 267. The plaintiffs allege that these statements were misleading because they communicated to investors that IonQ “had an existing 32 qubit quantum computing system,” when in fact it did not. *Id.* ¶ 268.

The plaintiffs also allege that Proxy statements on the system’s error correction were misleading:

The Proxy represented to investors that “For solid-state architectures, IonQ estimates that ***it may take at least 1,000 physical qubits to form a single error-corrected qubit, while for near-term applications with ion traps the ratio is closer to 16:1.***” In addition, the Proxy further represented that (i) “Because the ion qubits feature very low idle and native error rates and are highly connected, ***IonQ expects the error-correction overhead to be about 16:1 to achieve the first useful quantum applications. This contrasts with other approaches, for which IonQ estimates the overhead to be in the range of 1,000:1 to 100,000:1.***”; and (ii) “Compared to the trapped ion approach, the qubits generated via superconducting suffer from short coherence times, high error rates, limited connectivity, ***and higher estimated error-correction overhead (ranging from 1,000:1 to 100,000:1 to realize the error-corrected qubits from physical qubits).***”

Id. ¶ 269. These comparisons were misleading, the plaintiffs contend, because the defendants’ estimate of a 16:1 error ratio was based on IonQ’s current technology, whereas their estimates of 1,000:1 or 100,000:1 for IonQ’s competitors’ error ratios were based on competitors’ earlier-phase, more rudimentary systems. *Id.* ¶ 270. Had the defendants compared IonQ’s systems to its

competitors' more recent machines, "the differences in error correction would be substantially narrower." *Id.* The plaintiffs allege that the Scorpion Report's revelation of the misleading nature of these statements and the defendants' failure to dispute the report caused IonQ's share price to plummet, causing their losses.

G. Section 10(b) claim allegations

The plaintiffs also allege that throughout the Class Period, the defendants were aware a 32-qubit quantum computing system did not exist and IonQ's systems were nowhere near achieving the miniaturization or error correction necessary to achieve viability; that the defendants did not disclose these known problems to the public; and that the public statements that the defendants did make (both in the Proxy and elsewhere) were false and misleading. They further allege that in the three weeks leading up to the merger vote, the defendants made statements that attributed a tripling in contract bookings from \$5 to \$15 million to new cloud-based customers, rather than to a deal struck with UMD, a related third-party. Each of these types of misstatements, they contend, misled investors into "approv[ing] the [merger] and [propping] up the price of IonQ's securities after the closing." *Id.* ¶ 4.

1. Material misrepresentations and omissions

a. Existence of 32-qubit computer

The plaintiffs allege that beginning with a Roadshow Presentation to investors on March 8, 2021, IonQ made statements representing that it had a 32-qubit quantum computing system with an expected quantum volume of over 4 million even though "Defendants knew, but did not disclose, that IonQ did not have a 32 qubit quantum computing system, let alone a system with over 4 million quantum volume." *Id.* ¶ 156. The Roadshow Presentation announced a "32 qubit quantum computer with an expected quantum volume of 4,194,304, smashing the record for most

powerful quantum computer.” *Id.* ¶ 162; *see also id.* ¶ 163 (graphic announcing 32-qubit quantum computer with an expected quantum volume of 4,194,304). Chapman told investors that “***IonQ is easily winning***” compared to competitors using quantum volume as a benchmark. *Id.* ¶ 164. The presentation slides contained a graphic titled, “IonQ leads the pack: potential quantum volume by vendor.” *Id.* The slides also stated that IonQ’s quantum computer has the “***most usable qubits***” and the “***highest quantum volume by many orders of magnitude.***” *Id.* ¶ 166. In an announcement video released that same day, the narrator stated that IonQ had “in October 2020, the world’s most powerful quantum computer: ***a 32-qubit system that is a staggering 32,000 times more powerful than its closest competitors.***” *Id.* ¶ 168. The next day, on March 9, an interviewer asked De Masi about claims that IonQ’s system was 32,000 times more powerful; De Masi assured investors, “***this is the 32 cubit system we’re looking at here.***” *Id.* ¶ 169. The plaintiffs allege that the defendants made similar statements touting IonQ’s 32-qubit system throughout the Class Period, not only in the Proxy but also in video presentations, earning calls, presentations to analysts, blog posts, and other fora. They contend that these statements were false or misleading because the 32-qubit system did not exist.

b. Miniaturization

The plaintiffs next allege that the defendants made materially false or misleading statements regarding their progress in miniaturizing quantum computing systems. During the Roadshow Presentation, De Masi stated that “***IonQ’s technology is uniquely easy to manufacture***” and that IonQ’s miniaturization advantages gave it a “***tremendous lead over other quantum players.***” *Id.* ¶ 109. Chapman reiterated that “[f]or quantum to win, the systems need to shrink, and the cost per qubit must shrink as well, and IonQ is well-poised to win this phase too.” *Id.* ¶ 111. Slide 24 of the presentation was titled, “***IonQ’s Leading Modular Architecture:***

Each Generation of IonQ is Getting Smaller & Cheaper to Build.” *Id.* ¶ 110. It depicted the size of IBM’s and Google’s purported quantum hardware, at 6 feet and 20 feet respectively, next to an IonQ ion trap labeled as 2 inches wide. A later slide also displayed a “series of quantum computing systems of decreasing size,” under the title, “Smaller Every Generation: Complete System.” *Id.* ¶ 112. Under “2023,” the slide included a picture of a sleek black box. *Id.* Chapman stated that “our goal is, by 2023, *to build a relatively low-cost rack mounted, room temperature system.*” *Id.* ¶ 113. Six months later, during an IPO Edge Chat on September 14, 2021,⁶ De Masi again emphasized how the size of IonQ hardware compared to competitors’, stating that

we know how to shrink these things down to the point where we can put them in racks. So, it is a bit of a wives tale [sic] that says that ion traps have a problem at scaling. *When in fact, actually the competition, with these huge devices are looking at building quantum computers that will be the size of a building or a football field . . . today [ion traps are] down to the size of about a half dollar.*

Id. ¶ 115. These statements were misleading, the plaintiffs allege, because IonQ was nowhere near achieving miniaturization.

c. Error correction and fidelity

The plaintiffs also challenge the defendants’ statements about IonQ technology’s error correction capabilities and the fidelity of its 11-qubit quantum computing system. Regarding error correction, the plaintiffs challenge the same Proxy statements described earlier. They also point to similar statements in the Roadshow Presentation, depicting IonQ’s error correction as 16:1 and others’ as 1000:1 or 1,000,000:1. Regarding fidelity, they allege that IonQ’s website depicted the 11-qubit system’s average fidelity as >98% to >99%. They allege that the system’s fidelity was

⁶ The plaintiffs allege that the IPO Edge Chat took place on September 15, 2021. *Id.* However, according to the transcript of the call filed with the SEC, of which the Court takes judicial notice, that is incorrect: the call took place on September 14 and the transcript was filed on September 15. ECF 75-52, at 2.

in fact much lower and that the defendants omitted that even a system with a fidelity rate of 98–99% was effectively not functional.

d. Contract bookings

Finally, the plaintiffs claim that roughly three weeks before the merger vote, the defendants made various statements that IonQ had tripled its contract bookings from \$5 million to \$15 million while misleadingly omitting that the increase was almost entirely attributable to an agreement with UMD, not to new customers seeking access to IonQ’s cloud-based offerings. They point to remarks the defendants made in their announcement of the deal with UMD on September 8, their announcement on September 9 that they had tripled bookings expectations, a September 13 presentation to investors filed with the SEC, and calls with investors on September 14 and September 20. For instance, the plaintiffs allege that during the September 14 IPO Edge Chat, Kramer said that IonQ had announced in late March that “*we are anticipating \$5 million in economic value generated from contracts in cloud* for this year 2021. And only last week, we announced that *we will raise this guidance target to three times [] five. And we now anticipate coming in at \$15 million by year end.*” *Id.* ¶ 142. The plaintiffs also allege that the defendants continued to make similar statements after investors voted to approve the merger. For instance, on November 15, Kramer attributed the tripled bookings expectations to “the promise our *customers* see in our platform, and resulted from *customers* buying more and also earlier than we had expected.” *Id.* ¶ 145.

2. Scienter

The plaintiffs allege that the defendants knew or recklessly disregarded that the 32-qubit system did not exist; that miniaturization was not within reach; that their technology’s error correction and fidelity rates were not as good as described; and that UMD—not cloud-based

customers—provided the money that tripled contract bookings. They likewise knew or recklessly disregarded that, as a result, their statements to the contrary and associated omissions would mislead investors. For support, the plaintiffs cite the Scorpion Report’s interviews with ex-employees and to the allegations of a confidential witness (“CW1”). They claim one ex-employee had a conversation with Chapman in which he effectively conceded that the 32-qubit computer did not exist. CW1 claims he knew that Chapman had “no roadmap” to miniaturization. The plaintiffs also allege the defendants were financially motivated to commit fraud because they wanted investors to approve the merger and then to maintain IonQ’s high share price during a lock-up period, until they could sell their shares. They also assert that the defendants’ high-ranking positions within IonQ and dMY—combined with the fact that quantum computing development is IonQ’s core business—supports the inference that the defendants knew or recklessly disregarded that they were making misleading statements. And for the dMY defendants in particular, they allege that their extensive due diligence and De Masi’s physics background indicate that they must have known the alleged misstatements were false or misleading. The plaintiffs’ scienter allegations concerning the contract bookings focus on the defendants’ statements themselves. In particular, the plaintiffs emphasize the defendants’ consistent pre-merger pattern of describing the UMD deal without identifying it as the source of the contract bookings and suggesting that the contract bookings increase was driven by an increase in cloud-based business users, rather than attributing it to the UMD deal.

3. Loss causation

The plaintiffs claim that when the Scorpion Report was published before the market opened on May 3, 2022, it revealed to the public that IonQ’s 32-qubit computer did not exist; the company was nowhere near achieving miniaturization; its error correction and fidelity rates were worse than

stated; and its tripled contract bookings resulted from UMD's funding. They allege that the publication of the report's disclosures caused the value of IonQ's stock to drop by 9.03% that day, falling from \$7.76 per share to \$7.15 per share. They further allege that because the defendants failed to deny any of the Report's specific claims, the value dropped further, reaching \$4.43 per share on May 11.

II. Standards of Review

A. Rule 12(b)(6)

Under Rule 12(b)(6), a party may seek dismissal for failure "to state a claim upon which relief can be granted." *Robertson v. Anderson Mill Elementary Sch.*, 989 F.3d 282, 290 (4th Cir. 2021) (quoting Fed. R. Civ. P. 12(b)(6)). To survive the challenge, the opposing party must have pled facts demonstrating it has a plausible right to relief from the Court. *Lokhova v. Halper*, 995 F.3d 134, 141 (4th Cir. 2021) (citing *Ashcroft v. Iqbal*, 556 U.S. 662, 678 (2009)). A plausible claim is more than merely conceivable or speculative. *See Holloway v. Md.*, 32 F.4th 293, 299 (4th Cir. 2022).

When ruling on a Rule 12(b)(6) motion, the Court must accept the allegations as true and draw all reasonable inferences in favor of the pleader. *Williams v. Kincaid*, 45 F.4th 759, 765, 777 (4th Cir. 2022). But the Court does not accept "legal conclusions couched as facts or unwarranted inferences, unreasonable conclusions, or arguments." *United States ex rel. Taylor v. Boyko*, 39 F.4th 177, 189 (4th Cir. 2022) (quoting *United States ex rel. Nathan v. Takeda Pharms. N. Am., Inc.*, 707 F.3d 451, 455 (4th Cir. 2013)). Merely reciting a claim's elements "and supporting them by conclusory statements does not meet the required standard." *Sheppard v. Visitors of Va. State Univ.*, 993 F.3d 230, 234 (4th Cir. 2021) (quoting *ACA Fin. Guar. Corp. v. City of Buena Vista, Va.*, 917 F.3d 206, 212 (4th Cir. 2019)). The Court "does not resolve contests surrounding facts,

the merits of a claim, or the applicability of defenses.” *Ray v. Roane*, 948 F.3d 222, 226 (4th Cir. 2020) (quoting *Tobey v. Jones*, 706 F.3d 379, 387 (4th Cir. 2013)).

B. Rule 9(b)

When, as here, the allegations sound in fraud, the plaintiffs must meet the heightened pleading standard under Federal Rule of Civil Procedure 9(b). *In re Marriott Int’l, Inc. Cust. Data Sec. Breach. Litig.*, 543 F. Supp. 3d 96, 109 (D. Md. 2021) (requiring plaintiffs to satisfy Rule 9(b) for Section 10(b) claim); *Hershey v. MNC Fin., Inc.*, 774 F. Supp. 367, 375 n.9 (D. Md. 1991) (noting that “Rule 9(b) applies to § 14(a) claims when the underlying claim sounds in fraud”). Under Rule 9(b), the plaintiffs must “state with particularity the circumstances constituting fraud.” Fed. R. Civ. P. 9(b). These circumstances include “the time, place, and contents of the false representations, as well as the identity of the person making the misrepresentation and what he obtained thereby.” *Weidman v. Exxon Mobil Corp.*, 776 F.3d 214, 219 (4th Cir. 2015) (quoting *Harrison v. Westinghouse Savannah River Co.*, 176 F.3d 776, 784 (4th Cir. 1999)).

C. The Private Securities Litigation Reform Act

Under the PSLRA, the plaintiffs also must identify with precision any misleading statements or omitted material facts.⁷ To do so, the plaintiffs must “specify each statement alleged

⁷ The Supreme Court and the Fourth Circuit have not directly addressed whether plaintiffs alleging Section 14(a) claims must identify misstatements or omissions with the precision required by the PSLRA. But in cases in which the plaintiffs allege fraudulent conduct, courts generally conclude they must. *See Burt v. Maasberg*, No. ELH-12-0464, 2013 WL 1314160, at *28 (D. Md. Mar. 31, 2013) (citing *Cal Pub. Empls. Ret. Sys. v. Chubb Corp.*, 395 F.3d 126, 144–45 (3d Cir. 2004)). This “approach comports with the plain language of the PSLRA, which applies ‘in *any private action arising under this chapter* in which the plaintiff alleges that the defendant . . . made an untrue statement of a material fact; or . . . omitted to state a material fact necessarily in order to make the statements made . . . not misleading.’” *Id.* (citing 15 U.S.C. 78u-4(b)(1)) (emphasis in *Burt*). While the plaintiffs state that their Section 14(a) claim “does not sound in fraud,” ECF 64, ¶ 265, they clarify in their opposition that they object to a requirement that they show fraudulent *intent* for their Section 14(a) claim. But they do not object to being held to the PSLRA and Rule 9(b) pleading requirements. Their cited cases support this approach. *See In re Willis Towers*

to have been misleading, the reason or reasons why the statement is misleading, and, if an allegation regarding the statement or omission is made on information and belief, the complaint shall state with particularity all facts on which that belief is formed.” 15 U.S.C. § 78u-4(b)(1). If a complaint fails to meet the PSLRA’s requirements, it must be dismissed. *Id.* § 78u-4(b)(3)(A); *Yates v. Mun. Mortg. & Equity, LLC*, 744 F.3d 874, 894 (4th Cir. 2014) (affirming dismissal of securities fraud class action complaint for, among other reasons, failure to meet the PSLRA’s pleading requirements).

III. Request for Judicial Notice

The defendants request that the Court take judicial notice of 53 exhibits attached to IonQ’s motion to dismiss. “Consideration of extrinsic documents by a court during the pleading stage of litigation improperly converts the motion to dismiss into a motion for summary judgment.” *Zak v. Chelsea Therapeutics Int’l, Ltd.*, 780 F.3d 597, 606 (4th Cir. 2015) (citation omitted). To avoid conversion, courts deciding a Rule 12(b)(6) motion are limited to considering the complaint’s allegations, documents attached to the complaint, and “only such sources outside the complaint that are, in effect, deemed to be part of the complaint, for example, documents incorporated into the complaint by reference and matters of which a court may take judicial notice.” *In re Under Armour Sec. Litig.*, 342 F. Supp. 3d 658, 666–67 (D. Md. 2018) (citing *Tellabs, Inc. v. Makor Issues & Rights, Ltd.*, 551 U.S. 308, 322 (2007)); *see* Fed. R. Civ. P. 10(c). A document is incorporated into the complaint by reference if it is “integral to and explicitly relied on in the complaint” and if the plaintiffs do not challenge its authenticity. *In re Under Armour Sec. Litig.*, 342 F. Supp. 3d at 606 (citations omitted); *Cozzarelli v. Inspire Pharm. Inc.*, 549 F.3d 618, 625

Watson PLC Proxy Litig., 439 F. Supp. 3d 704, 714 (E.D. Va. 2020) (“[A] plaintiff [asserting a Section 14(a) claim] must allege with specificity the alleged misrepresentation or omission and why those statements or omissions were false or misleading.”).

(4th Cir. 2008) (considering investment analyst reports attached to the motion to dismiss because the complaint quoted from the reports and the plaintiffs did not challenge the reports' authenticity).

The Court also may consider facts that are subject to judicial notice under Rule 201(b) of the Federal Rules of Evidence. In the securities fraud context, courts often take “judicial notice of public record[s], such as the SEC filings and prospectuses, as well as press releases.” *Tchatchou v. India Globalization Cap., Inc.*, No. PWG-18-3396, 2021 WL 307415, at *5 (D. Md. Jan. 29, 2021) (citing *In re Mun. Mort. & Equity, LLC, Sec. & Deriv. Litig.*, 876 F. Supp. 2d 616, 653 n.7 (D. Md. 2012), *aff'd sub nom. Yates v. Mun. Mortg. & Equity, LLC*, 744 F.3d 874 (4th Cir. 2014)). “When a court takes judicial notice of a public record, it takes notice that the record exists, or that it was filed with the agency, or that the information was publicly available.” *Id.* (citing *In re Mun. Mortg. & Equity*, 876 F. Supp. 2d at 653 n.7). But the “content of a noticed document may not be used to contradict well-pleaded allegations in the complaint.” *Id.* (citing *Khoja v. Orexigen Therapeutics, Inc.*, 899 F.3d 988, 1014 (9th Cir. 2018)). And any facts drawn from judicially noticed documents must be construed “in the light most favorable to the plaintiffs.” *Zak*, 780 F.3d at 607.

The plaintiffs do not dispute that the Court may consider 25 of the documents attached to the motion to dismiss.⁸ These documents include SEC filings, IonQ press releases, transcripts of IonQ investor presentations and videos, a transcript of an interview with De Masi, analyst reports, industry articles, the Scorpion Report, an IonQ blog post responding to the Scorpion Report, and an IonQ Twitter post. Each document is integral to and explicitly referenced in the amended complaint, and the Court will consider them.

⁸ These documents are ECF 75-4, 75-6, 75-8 – 75-12, 75-14, 75-16, 75-20 – 75-21, 75-23, 75-27, 75-31 – 75-33, 75-46 – 75-47, 75-49 – 75-53, and 75-55 – 75-56.

Three additional documents are likewise quoted in the amended complaint: the transcript of an ICR Event Series discussion held on July 15, 2021 and filed with the SEC (ECF 75-7); the transcript of IonQ’s third quarter FY2021 earnings call held on November 15, 2021 (ECF 75-48); and the transcript of IonQ’s business call update held on September 20, 2021 and filed with the SEC (ECF 75-54). The plaintiffs do not dispute these documents are authentic or referenced in the amended complaint, but they want the Court to take judicial notice “only of the relevant portions of those documents,” which presumably are the parts they chose to quote or reference. ECF 90, at 6. The Fourth Circuit rejected a similar argument as “erroneous” in *Cozzarelli*, 549 F.3d at 625. There, the plaintiffs urged the court to rely only on their allegations in the complaint, which “quote[d] selectively from various reports,” and argued that the court “should not consider the reports in full.” *Id.* But given that the plaintiffs “nowhere challenge[d] the authenticity of the [reports] attached to defendants’ motion to dismiss and cited in [the] complaint,” the Fourth Circuit found it was “undoubtedly proper” to consider the reports. *Id.* (citing *Am. Chiropractic Ass’n v. Trigon Healthcare, Inc.*, 367 F.3d 212, 234 (4th Cir. 2004)). Here, too, it is proper to consider these documents in their entirety. The plaintiffs’ only cited authority, *Plymouth County Retirement System v. Evolent Health, Inc.*, is distinguishable. No. 19-cv-1031 (RDA/TCB), 2021 WL 1439680 (E.D. Va. Mar. 24, 2021). There, the court declined to consider the entire transcript of a day-long “Investor Day.” *Id.* at *18. Here, the documents are three relatively short transcripts of a discussion between De Masi and a consulting firm, an earnings call, and a business update call with investors. The plaintiffs referenced or quoted statements made during these discussions in the amended complaint. The Court will consider each transcript in its entirety.

Moving beyond documents referenced in the amended complaint, the defendants ask the Court to consider 15 publicly available articles, reports, IonQ press releases, blog posts, and SEC

filings that were published or released before or during the Class Period.⁹ The Court will take judicial notice of the information in these documents as an indication of what information was available to the market when the defendants made the allegedly misleading statements. *See In re Hum. Genome Scis. Inc. Sec. Litig.*, 933 F. Supp. 2d 751, 758 (D. Md. 2013) (noting courts “routinely take judicial notice of newspaper articles, analysts’ reports, and press releases in order to assess what the market knew at particular points in time, even where the materials were not specifically referenced in the complaint” (quotation omitted)). But the Court will not consider the substance of the information in the documents to refute the plaintiffs’ allegations, as the defendants urge the Court to do. *See Tchatchou*, 2021 WL 307415, at *5. For instance, they cite a press release announcing that IonQ secured new funding and advisory board members to bolster IonQ’s legitimacy, not to show market awareness. *See* ECF 75-1, at 16 (citing ECF 75-17 when noting that “[t]he company’s advisors include several world-renowned quantum physicists and academics, including a Nobel Laureate . . .”). The Court takes judicial notice of the 15 publicly available documents published or released before or during the Class Period but will consider them as indications of what was disclosed to the market and when, not for their truth.

Finally, the defendants attach 10 documents (including analyst reports, articles, social media posts, and IonQ press releases) that were published after the Class Period ended.¹⁰ At times, the defendants rely on these documents to show that IonQ did, in fact, “continue to execute on its business plan” by releasing a more advanced quantum computer and securing large contracts after the Class Period ended. ECF 75-1, at 23 n.10 (citing ECF 75-39 – 75-42). In other instances, they

⁹ These documents are ECF 75-5, 75-13, 75-15, 75-17 – 75-19, 75-22, 75-24 – 75-26, 75-28 – 75-30, and 75-44 – 75-45.

¹⁰ These documents are ECF 75-34 – 75-43.

rely on post-Class Period documents to undermine the legitimacy of the Scorpion Report. *See* ECF 75-1, at 27 (citing several of these exhibits to note that some analysts described the report as “less than convincing” and citing others to note that companies released statements disavowing the report’s characterizations of their relationships with IonQ). The defendants contend that these documents “simply . . . provide background information about the commercial reality facing the quantum computing industry generally and IonQ” specifically. ECF 93, at 21. They correctly point out that under *Tellabs*, courts should examine the plaintiffs’ allegations in context. 551 U.S. at 321. And the Court is not required to “don blinders and ignore commercial reality.” *Mylan Lab’ys, Inc. v. Akzo, N.V.*, 770 F. Supp. 1053, 1068 (D. Md. 1991). But the information in these documents was not available to investors during the Class Period and the documents do not shed light on the commercial reality in the quantum computing realm at the time the alleged misstatements were made. The defendants may not obtain dismissal of the complaint by legitimizing IonQ in hindsight with information that was not available to the market at the time the alleged misstatements were made.

The defendants cite to *Long Miao v. Fanhua, Inc.*, 442 F. Supp. 3d 774 (S.D.N.Y. 2020) to support their argument that these documents, which include analyst reports questioning the Scorpion Report’s validity, may be used to impugn the reliability of the report. But in *Long Miao*, the court noted that the short-seller report included many factual errors that an “alert reader [of the defendant’s already-published SEC filing] would have caught.” *Id.* at 804. The court did not sanction reliance on reactions to the report to refute the report or undermine its reliability. The

Court will not take judicial notice of the 10 documents released or published after the Class Period because the defendants seek to use them only for the truth of their contents.

The defendants' request for judicial notice is granted in part and denied in part.

IV. Motions to dismiss

IonQ and dMY have moved to dismiss the amended complaint on largely the same grounds. Except where otherwise noted, the Court analyzes both motions together.

A. Consideration of the Scorpion Report and CW1's allegations

The defendants argue the Court should dismiss the amended complaint because the only two sources that the plaintiffs rely on to support their claims—the Scorpion Report and CW1—are unreliable, and without those sources, the plaintiffs have not adequately pled claims under Section 10(b), 14(a), or 20(b).

Under the PSLRA, “[w]hen the complaint chooses to rely on facts provided by confidential sources, it must describe the sources with sufficient particularity to support the probability that a person in the position occupied by the source would possess the information alleged or in the alternative provide other evidence to support their allegations.” *Tchrs. ’ Ret. Sys. of La. v. Hunter*, 477 F.3d 162, 174 (4th Cir. 2007) (internal quotation omitted). At the motion to dismiss stage, a plaintiff can describe an anonymous source with sufficient particularity by alleging the “position, period of employment, responsibilities, and supervisors for each confidential witness.” *In re Marriott*, 543 F. Supp. 3d at 143. A plaintiff also can corroborate confidential witness allegations by alleging other independent, supporting facts. *In re Mun. Mortg. & Equity*, 876 F. Supp. 2d at 640 (“Confidential witness allegations must be examined to consider the sources’ basis of knowledge, the reliability of the sources, the corroborative nature of other facts alleged, the coherence and plausibility of the allegations, and similar indicia.” (citation omitted)). Courts

dismiss securities fraud actions when plaintiffs fail to sufficiently allege that underlying anonymous sources are reliable. *Long Miao*, 442 F. Supp. 3d at 804 (granting motion to dismiss where complaint “relied exclusively on general statements credited to anonymous interviewees in a[n uncorroborated] secondhand short-seller report”); *Hershewe v. JOYY Inc.*, No. 2:20-cv-10611-SB-AFM, 2021 WL 6536670, at *4–*6 (C.D. Cal. Nov. 5, 2021) (disregarding uncorroborated short-seller report and granting motion to dismiss).

1. The Scorpion Report

The Scorpion Report was prepared and issued by short sellers of IonQ stock. As short sellers, the report’s authors stood to gain financially if IonQ stock dropped in value. The report is a scathing public rebuke of IonQ that claims the company lied to investors about its quantum computers. The report relies largely on interviews of 25 people who purported to have knowledge of IonQ’s quantum computers, but it does not identify a single source by name. The report also claims that two anonymous quantum computing experts “independently verified that IonQ’s 11-qubit quantum computer . . . is a farce,” based on scripts the unidentified experts ran on the 11-qubit system. ECF 75-31, at 6. Beyond the anonymous source information, the report compiles and quotes from myriad public news articles, including those authored by named scientists, cautioning against the “hype” of the quantum computing industry. *See id.* at 15.

The fact that the Scorpion Report is a short-seller report does not, on its own, make it inherently unreliable. In *Long Miao*, the court aptly observed that the

developing body of case law involving factual attributions to short-seller reports . . . instead reflects the need for similar caution and care as with respect to attributions to CWs. Courts have critically analyzed such attributions, dismissing some but generally sustaining others where independent factual allegations corroborated the factual allegation in the complaint drawn from short-sellers’ reports.

442 F. Supp. 3d at 801 (collecting cases). When a short-seller report relies on anonymous sources without corroborating facts, courts should closely scrutinize it. *Id.* “In that circumstance, the risk of motivated reporting by the author of the short-seller report is twinned with the reliability concerns presented by anonymous sourcing” *Id.*

The Scorpion Report relies exclusively on interviews with anonymous sources: former IonQ employees, experts in the field of quantum computing, and IonQ clients. Generally, the seven unidentified former IonQ employees and executives say that IonQ’s claims regarding its computer systems were exaggerated and “outlandish.” ECF 75-31, at 54. The report refers to these individuals as “ex-employee, member of technical staff,” “former executive,” “ex-senior employee,” ex-employee in a “key scientific role,” or “ex-employee, physicist.” *See, e.g., id.* at 33. Except for “physicist,” these generalized position labels do not reveal the employees’ duties or responsibilities, which leaves the Court guessing about whether it is plausible that they had access to the information they claimed to know. The report does not state what division they worked in; who their supervisors were; or when or how long they worked at IonQ. Indeed, the report acknowledges that the information provided by these former employees “may be outdated.” *Id.* at 3. These vague, non-specific descriptions of the job titles of anonymous former employees do not allow the Court to infer that they likely had the information they reported. *Tchrs. ’ Ret. Sys. of La.*, 477 F.3d at 174.

The Scorpion Report also relies on interviews with 11 anonymous quantum computing experts. The report describes the experts as “longtime friends and fellow academics” with IonQ founders Monroe and Kim, with whom some of them had co-authored papers. ECF 75-31, at 30. The report describes one UMD professor as “a peer and colleague of IonQ co-founder Chris

Monroe who is closely involved with [UMD's] quantum computing initiatives.” *Id.* at 161.

Another quantum computing scientist is quoted as saying

I’ve known Monroe and Kim for probably about 20 years. I followed their trajectories, which were purely academic for a long time. We travel in the same community, publish in the same journals, attend the same conferences, and so on. I’m also quite familiar with some of the members of their team.

Id. at 85. This scientist says that an anonymous grad student he worked closely with had tried

IonQ’s 11-qubit system and was “surprised” at its inferiority

in terms of the interface, ease of use and so on It was inferior in terms of the low-level operations you could perform, the amount of insight you could get into what’s actually going on when you send a command, how are the qubits responding. What’s happening behind the scenes was not nearly as good with IonQ as with [a named competitor].

Id. at 86. This expert also says: “There’s a big gap with respect to the reality of what’s actually out there and how long it’s going to take to see these deliverables.” *Id.* Another expert says that “their error rates need to be 100 times lower” and “I just don’t see how it’s going to work.” *Id.* at 100. While the descriptions of the experts indicate their field of expertise and how they know IonQ’s founders, the experts do not claim to have discussed IonQ’s internal affairs with the individual defendants during the Class Period or to have firsthand knowledge about IonQ’s technology during the Class Period. With the possible exception of one scientist’s unnamed graduate student (who does not indicate when he used the 11-qubit system), they do not claim they ever used IonQ’s technology. Even if the information the quantum computing experts offer about the state of quantum computing technology writ large is reliable, the plaintiffs have not adequately supported the probability that those experts knew specifics about IonQ’s technology during the Class Period such that their commentary could render IonQ’s statements false or misleading.

Finally, the Scorpion Report relies on interviews with IonQ customers and partners. The unidentified customers and partners each “‘laughed at, mocked, or trashed IonQ’s capabilities,’

saying the machine ‘isn’t really real’; ‘way too much instability’; ‘not really useful’; ‘run times are really slow’” *Id.* at 133. Again, the Court cannot discern whether these customers and partners are reliable because, as with the former IonQ employees, the report describes them generically, such as a “QCWare executive.” *Id.* at 137. There is no description of the nature of their interactions with IonQ or its technologies, whom at IonQ they worked with, or when or how often they did business with IonQ. *See id.* at 137. At times, the report speculates as to which allegedly dissatisfied customers these partners may be referring to, noting for instance that “the executive didn’t state the customer’s identity, but we believe it to be Goldman Sachs, perhaps the highest profile ‘customer’ that IonQ has hyped.” *Id.* at 138. The anonymous dissatisfied IonQ customers and partners are not described with sufficient particularity to allow the Court to plausibly infer that they are reliable sources of information.

Making matters worse, Scorpion does not corroborate the information from these unreliable anonymous sources with public sources. The report quotes numerous articles about market skepticism of “quantum hype” generally, but none of them contains specific information about IonQ that bolsters the reliability of the anonymous sources. *Id.* at 15. The report also includes photographs from publicly available sources, but they do not add reliability either. A picture from a 2014 article about IonQ shows co-founder Monroe standing in a lab filled with wires, but explicitly acknowledges that Monroe was discussing “an older version of the device.” *Id.* at 69. This photograph predates the Class Period and relevant technology by more than seven years. There is also a picture of ion-trap quantum computer technology from 2021, but it depicts a lab that does not belong to IonQ, *id.* at 72, so it does not corroborate statements about the size of IonQ computers. And there is a picture from a 2020 IonQ research paper that shows a trapped-ion quantum computer sitting on a table. *Id.* at 71. The report does not connect the undated picture

from the pre-Class Period article to the claims of the anonymous sources or indicate which IonQ system it depicts. Finally, the report includes screenshots of the presentation slides that contain the allegedly misleading statements. Of course, those screenshots do not independently corroborate the anonymous sources either.

Finally, the tests run by anonymous experts hired by Scorpion do not corroborate the anonymous sources. The report quotes a quantum computing professor who states that “IonQ’s progress on error rates has stalled.” *Id.* at 107. The report asserts that Scorpion corroborated this and similar statements. Scorpion “independently verified that IonQ’s 11-qubit quantum computer . . . is a farce” by hiring “a quantum computing expert to run a script [to add $1 + 1$] to see how often it returned ‘2’ as the answer.” *Id.* at 112. Scorpion states that it hired a second “quantum computing expert” to test the 11-qubit system’s ability to add $2 + 3$. Both tests purportedly produced “shocking” error rates. *Id.* The report includes screenshots of excerpts from the scripts used in these experiments and a breakdown of the tests’ results. But the report does not describe the educational or experiential background of the “quantum computing experts” other than to say that they are a “quantum computing faculty member” and “user of IonQ’s machine,” and have “done what I would call as testing quantum algorithms. I know a few algorithms, and I can run those algorithms on various devices.” *Id.* at 113. The report does not state when these algorithms were run. And it does not describe how these particular algorithms, and the basic math they test, are accurate measures of the error correction and fidelity rates at issue in the challenged statements. Without any of these details, the complaint’s allegations based on these tests results lack sufficient indicia of reliability. *See Hershewe*, 2021 WL 6536670, at *5 (discounting anonymous short-seller report’s technical analysis where the plaintiffs and report author failed “to provide basic information about the soundness or quality of the technical analysis . . . including the qualifications

of the unidentified ‘researchers’ to perform the analysis [and] the accuracy of the methodology used”).

The court in *Long Miao* considered similar circumstances. In that case, the complaint “recapitulate[d a short-seller report’s] characterization of purported interviews with anonymous sources,” including numerous former employees and customers or partners of the company. *Long Miao*, 442 F. Supp. 3d at 802–03. But the sources’ “positions and job responsibilities [we]re not described at a sufficient level of particularity to indicate a high likelihood that they actually knew facts underlying their allegations.” *Id.* (internal quotation and citation omitted). And the statements were “entirely unmoored in time.” *Id.* Moreover, the complaint did not contain any independent, well-pled factual allegations to corroborate the anonymous sources. *Id.* at 803. The court noted that the plaintiff’s counsel appeared to have done “nothing whatsoever” to confirm the sources’ identities or statements. Here, the plaintiffs’ counsel “review[ed] the Defendants’ public documents, conference calls and announcements made by Defendants, [SEC] filings, wire and press releases published by and regarding IonQ . . . analysts’ reports and advisories . . . and information readily obtainable on the Internet.” ECF 64, at 8. Their investigators also spoke with CW1, but for the reasons discussed later in this opinion, CW1’s allegations are not reliable. Yet despite these efforts, the plaintiffs do not allege independent facts corroborating the information from the anonymous sources in the Scorpion Report. As in *Long Miao*, the report does not describe the anonymous sources with sufficient particularity, and neither the report nor the amended complaint contains independent factual allegations that corroborate them. *Id.* at 801 (dismissing complaint relying on general statements credited to anonymous interviewees in secondhand short-seller report uncorroborated by independent investigation by counsel).

The plaintiffs cite numerous cases in support of their position that the Scorpion Report is reliable and should be considered on a motion to dismiss. They analogize the Scorpion Report to another Scorpion report in *In re QuantumScape Securities Class Action Litigation*. 580 F. Supp. 3d 714 (N.D. Cal. 2022). There, the court held that the plaintiffs could, at the pleading stage, rely on a short-seller report that depended entirely on anonymous ex-employees and experts. *Id.* at 731. The court found that the description of the former employees as “research and development” employees plausibly indicated they would know about the progress and effectiveness of the company’s battery design. *Id.* It noted, too, that each of the nine employees presented “overlapping and corroborative information.” *Id.* But the court also highlighted that the information reported by the unidentified employees was supported by other public information pled in the report and by a separate article authored by a *named* expert. That named expert’s article described in detail the ways in which the company’s claims overstated various data points. *Id.* at 727–28. The anonymous sources in the short-seller report “cohere[d] with what [the named expert] found in his earlier report.” *Id.* at 732. Given these mutually reinforcing facts, the report had the “minimum indicia of reliability” to survive a motion to dismiss. *Id.* Here, the plaintiffs do not point to any articles written by identified experts that corroborate the information given by the anonymous sources.

The plaintiffs’ reliance on *Novak v. Kasaks*, 216 F.3d 300 (2d Cir. 2000) is similarly misplaced. There, the district court dismissed the complaint “in substantial part” because the plaintiffs did not reveal their confidential sources. *Id.* at 312. The Second Circuit reversed, reasoning that relying on anonymous sources was not per se insufficient and the complaint provided “specific facts” from SEC filings and weekly report data that indicated that the company’s inventory was overvalued. *Id.* That is, “several documentary sources that support the

plaintiffs' belief that serious inventory problems existed." *Id.* Here, the Court does not discredit the Scorpion Report because its sources are anonymous. It discredits the report because the plaintiffs have not offered "documentary sources" corroborating those anonymous sources or described them with the particularity required to support the probability that they could have known the information they provided.¹¹

2. CW1's allegations

The only other source of information the plaintiffs rely on is a former IonQ employee who also is anonymous. CW1 was the "Vice President of Business Development" at IonQ from October 2020 to November 2021, based in Southern California. ECF 64, ¶ 37. CW1's "job responsibilities included sales and working to line up clients," and he reported directly to Chapman. *Id.* CW1 "spoke with Plaintiffs' investigators in connection with this action, [and] confirmed the accuracy of these allegations, stating that he learned from IonQ's scientists that the [32-qubit] system did not exist." *Id.* ¶ 10. In particular, CW1 allegedly stated that

after asking colleagues about the 32-qubit computer, he could never get a straight answer. [He] then went to IonQ's scientists, "and they were all like, 'Nope.'" . . . "[W]hen I went to the scientists and said, 'Where's the 32-qubit device?' they were like 'what?'" CW1 stated that employees at the company, including himself, were concerned about the announcement of the 32-qubit computer because that system didn't actually exist.

¹¹ Additional cases cited by the plaintiffs are likewise distinguishable. In *In re Longwei Petroleum Inv. Holding Ltd. Sec. Litig.*, No. 13 CH 214(HB), 2014 WL 285103 (S.D.N.Y. Jan. 27, 2014), the court credited a short-seller report that was based not only on anonymous interviews but also on timely video surveillance and photographs of the facilities in question, which were then corroborated by news footage and independent investigative findings by the plaintiffs. In *Lewy v. SkyPeople Fruit Juice, Inc.*, No. 11 Civ. 2700(PKC), 2012 WL 3957916 (S.D.N.Y. Sep. 10, 2012), the court credited a short-seller report where the report's authors were named; other public filings obtained by the plaintiffs corroborated the report's unnamed sources; and those sources indicated that the sources had visited the facilities in question and included the sources' photographs. In *Bond v. Clover Health Inv., Corp.*, 587 F. Supp. 3d 641 (M.D. Ten. 2022), the court credited a short-seller report that was corroborated by other confidential witnesses that had been described with sufficient indicia of reliability and accepted in part by the defendants' own concessions.

Id. ¶ 104. CW1 estimated that the IonQ computer “was approximately the size of an SUV.” *Id.* ¶ 118. He also stated that Chapman “didn’t even have a roadmap for building a small device.” *Id.* ¶ 122.

The CW1 allegations do not support a probability that CW1 would possess the information he claims to know. True, the plaintiffs disclose his position, period of employment, responsibilities, and supervisor. But CW1 left IonQ in November 2021, at least five months before the end of the Class Period; even if CW1 can speak to developments during his employment with IonQ, CW1 cannot speak to developments after he departed. More importantly, though, his position and responsibilities—a business development executive on the West Coast who worked in sales to “line up clients”—do not support the inference that he would have insight into the technical side of IonQ’s business and its developments in research and design. There are no specific allegations to support a plausible inference that CW1—who was not involved in the research, design, or development of IonQ’s quantum computers—would possess information about the company’s progress on and the size of the 32-qubit machine, which was located on the East Coast.¹² And while the complaint alleges that CW1 reported to Chapman, there are no allegations from which the Court may infer that a sales executive in California, whose job was to line up clients, spoke with Chapman about the technical aspects of IonQ’s computer systems or

¹² In their opposition, the plaintiffs assert particulars about CW1’s job responsibilities that they believe indicate he would have a working knowledge of the current state of IonQ’s technological progress. *See* ECF 91, at 32–33. But they do not plead these details. The plaintiffs may not amend their complaint via briefing. *S. Walk at Broadlands Homeowner’s Ass’n, Inc. v. OpenBand at Broadlands, LLC*, 713 F.3d 175, 184 (4th Cir. 2013). Even if the plaintiffs pled these details, that would not cure all the pleading deficiencies. Because the CW1 allegations only concern the defendants’ statements about the 32-qubit computer and miniaturization, the CW1 allegations cannot save the plaintiffs’ claims about error correction and contract bookings. And because the CW1 allegations only speak to whether the defendants’ statements on the 32-qubit computer and its size were true and what the defendants knew about them, they only bear on falsity and scienter. The plaintiffs would still fail to plead loss causation.

the status of the 32-qubit system. The CW1 allegations simply do not “support the probability that [he] would possess the information alleged.” *Tchrs. ’ Ret. Sys. of La.*, 477 F.3d at 174; *Long Miao*, 442 F. Supp. 3d at 799 n.19 (collecting cases), 803 (disregarding short-seller report relying on anonymous sources because, among other reasons, their positions and job responsibilities were not sufficiently described to “indicate a high likelihood that they actually knew facts underlying their allegations” (citation omitted)). As with the Scorpion Report, the plaintiffs do not cite independent facts that corroborate CW1’s statements.

The Court finds that the plaintiffs have not alleged that the Scorpion Report and CW1 are reliable sources of information. Without them, the plaintiffs have not alleged the elements of a Section 14(a), Section 10(b), or Section 20(a) claim. But, as explained below, even if the Court considered the Scorpion Report and the CW1 allegations, the plaintiffs still fail to state a claim.

B. Section 14(a) claim

The purpose of the Exchange Act is to “ensure that companies disclose the information necessary for investors to make informed investment decisions.” *Yates*, 744 F.3d at 884 (citation omitted). To accomplish this purpose, Section 14(a) of the Exchange Act prohibits the solicitation of “proxies through a proxy statement that contains false or misleading material facts or omits any material fact that leaves a proxy statement false or misleading.” *Paradise Wire & Cable Defined Ben. Pension Plan v. Weil*, 918 F.3d 312, 318 (4th Cir. 2019) (citing 17 C.F.R. § 240.14a-9(a)). Section 14(a) carries an implied private right of action. *See Va. Bankshares, Inc. v. Sandberg*, 501 U.S. 1083, 1099 (1991). To state a claim under Section 14(a), a plaintiff must allege “that (1) the proxy statement contained a material misrepresentation or omission (2) that caused the plaintiff injury and that (3) the proxy solicitation was an essential link in the accomplishment of the transaction” that produced the injury. *Hayes v. Crown Cent. Petroleum Corp.*, 78 F. App’x 857,

861 (4th Cir. 2003) (*per curiam*) (citing *Gen. Elec. Co. v. Cathcart*, 980 F.2d 927, 932 (3d Cir. 1992)). To allege a material misrepresentation or omission, the challenged statement must be a factual one—“that is, one that is demonstrable as being true or false”; (2) the “statement itself must be *false*, or the omission must render public statements *misleading*”; and (3) “any statement or omission of fact must be *material*.” *Longman v. Food Lion, Inc.*, 197 F.3d 675, 682 (4th Cir. 1999) (describing falsity requirement in Section 10(b) context); *TSC Indus., Inc. v. Northway, Inc.*, 426 U.S. 438, 462–63 (1976) (describing Section 14(a)’s standard of materiality for alleging that a statement is false or misleading with respect to any material fact); *Basic Inc. v. Levinson*, 485 U.S. 224, 232 (1988) (holding that the standard for a material false or misleading statement in Section 14(a) claims articulated in *TSC Industries* is the same as for Section 10(b) claims).¹³

1. Material misrepresentations or omissions in the Proxy

The plaintiffs allege that the defendants’ August 12, 2021 Proxy contained material misrepresentations or omissions regarding (1) the existence of the 32-qubit quantum computing system and (2) IonQ’s systems’ error correction capabilities. “Materiality is an objective concept, involving the significance of an omitted or misrepresented fact to a reasonable investor.” *Longman*, 197 F.3d at 682–83 (internal quotation omitted). “A fact—omitted or included—is material if there is a ‘substantial likelihood’ that its disclosure or removal ‘would have been viewed by the reasonable investor as having significantly altered the total mix of information made available.’” *San Antonio Fire & Police Pension Fund v. Syneos Health, Inc.*, No. 21-2309, --- F.4th ---, 2023 WL 4688178, at *7 (4th Cir. July 24, 2023) (quoting *TSC Indus.*, 426 U.S. at 449);

¹³ It is not clear whether negligence or recklessness is required for the plaintiffs’ Section 14(a) claims. *In re Willis Towers Watson*, 937 F.3d at 307. Both the Fourth Circuit and the Supreme Court have expressly declined to address whether Section 14(a) requires a similar showing of scienter as Section 10(b). *Id.* Because the issue is not relevant to the Court’s analysis, the Court need not decide it.

see Longman, 197 F.3d at 682 (noting that a fact or omission is material “if there is a substantial likelihood that a reasonable purchaser or seller of a security (1) would consider the fact important in deciding whether to buy or sell the security or (2) would have viewed the total mix of information made available to be significantly altered by disclosure of the fact” (citation omitted)). Materiality is contextual: “[A] fact that is material when viewed in a vacuum may be immaterial when considered, as is appropriate, in a broader frame.” *Syneos Health*, 2023 WL 4688178, at *7 (internal quotations and citations omitted).

The Exchange Act does not “create an affirmative duty to disclose any and all material information.” *Matrixx Initiatives, Inc. v. Siracusano*, 563 U.S. 27, 44 (2011). Rather, disclosure is required “only when necessary ‘to make . . . statements made, in the light of the circumstances under which they were made, not misleading.’” *Id.* (quoting 17 C.F.R. § 240.10-b5(b)); *see Singer v. Realiti*, 883 F.3d 425, 440 (4th Cir. 2018). “Even with respect to information that a reasonable investor might consider material, companies can control what they have to disclose under these provisions by controlling what they say to the market.” *Matrixx*, 563 U.S. at 45.

The Court addresses each category of challenged statements in the Proxy in turn.

a. 32-qubit quantum computing system

The plaintiffs challenge the Proxy’s statement that “*IonQ’s 32-qubit system, which is an important milestone for IonQ’s technical roadmap and commercialization*, is not yet available *for customers* and may never be available.” ECF 64, ¶ 267. They also challenge its statement that “*IonQ is developing its next-generation 32-qubit quantum computer system*, which has not

yet been made available to customers.” *Id.* They allege that these statements were false and misleading because at the time “IonQ did **not** have a 32 qubit computer.” *Id.* ¶ 268.

To support their allegations that the Proxy contained materially false or misleading statements, the plaintiffs point to the statements of anonymous former IonQ employees. An ex-executive interviewed for the Scorpion Report stated that he was initially told the 32-qubit machine “was in the next room, and it was working,” but in reality, “[i]t never happened . . . there has never been a publication or a demonstration of that 32-qubit device, 4.2 million quantum volume.” ECF 75-31, at 55; *see also id.* at 59 (ex-executive stating that “[t]here’s no data that shows they have a 32 qubit 4.2 quantum volume device They just simply haven’t published it because it doesn’t exist”). When this executive was asked by Scorpion if he had ever seen the machine in the room next door, he replied, “That’s bullshit Totally made up.” ECF 75-31, at 55; ECF 64, ¶ 95. When asked if it was “well-known inside the company that there’s no 32-qubit machine right now,” he replied, “Totally.” ECF 75-31, at 55; ECF 64, ¶ 95. But when the ex-executive was pressed about whether he meant that the 32-qubit claim was “truly just a flagrant lie, or did they have a machine on a table that has 32 qubits, and it had errors . . . Or they just literally didn’t have it?”, he replied, “There’s a machine in development, and they hope that it will be able to do it, but it hasn’t done it yet.” ECF 75-31, at 56. When asked whether he ever had a direct conversation with Chapman, the ex-executive said he did and that Chapman would say, “We’ll have it one day. We’re working on it.” *Id.*

This former executive—whose specific position and responsibilities are a mystery—largely does not identify how he knows what he claims to know. He states he was told the 32-qubit machine “was in the next room, and it was working,” but he does not identify who told him this or when. His conclusion that “[i]t never happened” is vague. But even if “it” refers to the 32-

qubit machine, he does not explain from whom he learned that or when. These allegations are not pled with the PSLRA's required particularity. Moreover, in one breath, the ex-executive claims the machine was "totally made up," but in the next, he says there is a machine "in development" and "they hope it will be able to do it, but it hasn't done it yet." The latter notion comports with the only statement the ex-executive attributes to Chapman: that IonQ is "working on it." When read holistically, the statements of this ex-executive do not support the inference that IonQ's representation that it had a 32-qubit system in development was false.

The plaintiffs rely on yet another anonymous former employee—a "senior technical" employee—who also was interviewed for the Scorpion Report. This ex-employee stated,

When they made the [October 2020 announcement of the 32-qubit system], 4 million quantum volume was not there. I think that was pretty clear from the statement in the sense that they said that they're not going to deliver by a certain date in the first place. I do not believe we had it [when announced in October 2020].

Id. at 61. This person's interpretation of a pre-Class Period statement—that IonQ was not promising a certain delivery date of the 32-qubit system with 4 million quantum volume—hardly supports an inference that IonQ falsely stated, in October 2020 or afterwards, that the 32-qubit system actually existed. Equally problematic is the fact that the ex-employee does not explain how he—an employee whose duties, responsibilities, and supervisors are concealed—would know whether the 32-qubit system with a 4 million quantum volume existed.

The plaintiffs also rely on CW1, another anonymous former IonQ employee, who allegedly "learned that no 32-qubit computer existed shortly after joining IonQ in October 2020." ECF 64,

¶ 104. The plaintiffs allege that CW1 stated that

after asking colleagues about the 32-qubit computer, he could never get a straight answer. [He] then went to IonQ's scientists, "and they were all like, 'Nope.'" . . . "[W]hen I went to the scientists and said, 'Where's the 32-qubit device?' they were like 'what?'" CW1 stated that employees at the company, including himself, were

concerned about the announcement of the 32-qubit computer because that system didn't actually exist.

Id. CW1's inability to get a "straight answer" to an unspecified question "about the 32-qubit computer" from unidentified colleagues does not support a plausible inference that the 32-qubit system did not exist at the time of these undated, vague conversations. And the unidentified scientists' responses of "Nope" to CW1's unspecified questions "about the 32-qubit computer" and "What?" to the question "Where's the 32-qubit device?" do not plausibly suggest that the "scientists" said the 32-qubit system did not exist. These purported conversations on unspecified days in unspecified locations are consistent with the notion that the 32-qubit system was in development at the time.

The closer question is not falsity, but whether IonQ's statements in the Proxy were materially misleading. The plaintiffs cast IonQ's statements as implying to investors that the 32-qubit system *then* existed in *fully functioning form*. In other words, the plaintiffs contend that IonQ's statements are misleading because they omit the crucial clarifying detail that the 32-qubit system did not then exist in a realized state. But the defendants omitted no such detail. IonQ informed investors that the 32-qubit system "is not yet available for customers and may never be available" and that "IonQ is developing its next-generation 32-qubit quantum computer system, which has not yet been made available to customers." ECF 75-8, at 19. By disclosing the system was not yet and might never be commercially available, IonQ did not mislead investors into believing that its technology existed in fully functional form when it did not.

IonQ also disclosed the state of its technology to investors in risk disclosures found in the Proxy, which state:

IonQ is developing its next-generation 32-qubit quantum computer system, which has not yet been made available to customers. IonQ expects this system to have 22 algorithmic qubits, i.e., qubits that are usable to run quantum algorithms, but the

number of algorithmic qubits available in this system has not been finalized and may be fewer than planned. The availability of this generation of quantum computer system for customer use or independent verification by a third party may be materially delayed, or even never occur. Additionally, the future success of IonQ's technical roadmap will depend upon its ability to approximately double the number of qubits in each subsequent generation of its quantum computer. Accordingly, IonQ's technical roadmap may be delayed or may never be achieved, either of which would have a material impact on IonQ's business, financial condition or results of operations.

Id. The Proxy also stated more generally that “***IonQ has not produced a scalable quantum computer and faces significant barriers in its attempts to produce quantum computers. If IonQ cannot successfully overcome those barriers, its business will be negatively impacted and could fail.***” *Id.* at 18 (emphasis in original); *see also id.* at 14 (“Commercial production of quantum computers may never occur [T]here are significant technological and logistical challenges”). And it specifically disclosed that “[a]s of the date of this [statement], IonQ has only commercialized a quantum computer with 11 algorithmic qubits.” *Id.* at 13.

The Fourth Circuit recently addressed the effect of risk disclosures on the materiality of omissions. Risk disclosures are considered part of the “total mix of information made available” to investors. *Syneos Health*, 2023 WL 4688178, at *7 (citing *TSC Indus.*, 426 U.S. at 438). If, given the risk disclosures, it is “not substantially likely that adding an additional truthful fact would have changed a reasonable investor’s mind about their investment decision, then adding that fact would not have significantly altered how they viewed the total mix, and that fact is thus immaterial.” *Id.* (internal quotations omitted). The warnings, however, must be “specific and tailored to address the alleged misrepresentation or omission Vague, boilerplate disclaimers will not cut it.” *Id.* (citations omitted). In *Syneos Health*, the plaintiffs alleged that a company’s statements about the prospects of a biopharmaceutical merger misleadingly omitted that the company had not yet secured any large sales contracts that year and that those types of contracts

were important to its success. 2022 WL 4688178, at *4. The Court found that the company did not make any material omissions because it included “specific warnings, tailored to address” the plaintiffs’ specific concerns, including that the projections were based on “‘pipeline discussions’ with customers rather than finalized deals” and may have been based on flawed assumptions. *Id.* at *8 (citations omitted). These and other tailored warnings “warn[ed] the investor not to rely too heavily on, or read too deeply into, a certain proposition,” rendering any omissions immaterial. *Id.* The court observed that “because materiality is contextual, it can be ‘negate[d]’ by adequate warnings and disclaimers.” *See id.* at *7 (citing *Gasner v. Bd. of Supervisors*, 103 F.3d 351, 358 (4th Cir. 1996)).

The plaintiffs attempt to distinguish *Syneos Health* by arguing that the defendants misrepresented “current or historical facts” about IonQ’s technology; specifically, that IonQ did not in fact have the technology it claimed to have. *See* ECF 96, at 1. But IonQ’s robust and specific disclosures undermine their position. As in *Syneos Health*, these disclosures are neither vague nor boilerplate. They warn that IonQ does not yet and may never have a commercialized 32-qubit system; that the expected “number of algorithmic qubits available in this system has not been finalized and may be fewer than planned”; that the “availability of this generation of quantum computer system for customer use or independent verification by a third party may be materially delayed, or even never occur”; and that “IonQ’s technical roadmap may be delayed or may never be achieved, either of which would have a material impact on IonQ’s business, financial condition or results of operations.” ECF 75-4, at 17. Investors were on notice of the risks.

The key case that the plaintiffs cite in support of their position, *In re QuantumScape*, 580 F. Supp. 3d 714, is distinguishable. There, the company stated it had solved issues generally known to plague the type of batteries it produced (solid-state batteries), and that it was the first to

do so “without using compromised test conditions.” *Id.* at 723. The company also stated that the “fundamental science risk” associated with these batteries was “behind [it]” and its data showed how it “can address fundamental issues.” *Id.* at 736 (internal quotation omitted). It indicated that “it was ready for commercialization with the only remaining steps being ramping up production and layering the cells.” *Id.* at 734. The court found that the plaintiffs plausibly alleged that these statements were materially misleading because they adequately alleged the solid-state batteries were not exhibiting the claimed properties under normal conditions. *Id.* If this were true, the court reasoned, then it was misleading for the company to suggest “that the *only* major steps in battery development that remain[ed] were production increases and stacking.” *Id.* at 735.

The defendants did not make similar statements here. Their risk disclosures did not say that the difficulties of making quantum computing systems were behind them or that their systems were ready for commercialization upon the completion of certain identified steps. Instead, they stated that the 32-qubit system was not and may never be commercially available. They characterized the remaining barriers to producing a scalable quantum computer as “significant” and stated that they may never be overcome. Rather than posture that they had solved widely recognized, fundamental risks, they acknowledged that they might never commercialize quantum computers due to remaining technological and logistical challenges.

The plaintiffs’ reliance on *Sinnathurai v. Novavax, Inc.*, --- F. Supp. 3d ---, No. TDC-21-2910, 2022 WL 17585715 (D. Md. Dec. 12, 2022) is misplaced for a similar reason. There, the court denied the motion to dismiss the plaintiffs’ securities fraud claims where the company claimed it had “eliminated all [] serious hurdles” to manufacturing a COVID-19 vaccine when, in

reality, its manufacturing facility was shut down at the time. *Id.* at *16. IonQ did the opposite: It acknowledged that significant hurdles remained.

The plaintiffs also cite to *SEC v. StratoComm Corp.*, 652 F. App'x 35 (2d Cir. 2016). There, the Second Circuit affirmed the denial of a motion to dismiss where the plaintiffs alleged that a company misleadingly billed itself as a “provider” of a telecommunications system, despite the fact that it had never actually built, tested, or acquired that system. *Id.* at 37. The court concluded that the statements were misleading because the company was “in no position to begin selling anything: it had never put together or tested a complete system.” *Id.* *StratoComm* is distinguishable because the defendants never stated that IonQ had a 32-qubit quantum computing system ready to be sold on the market. Instead, they indicated to investors that the 32-qubit system was not yet available for commercialization and may never be. The plaintiffs also point to *SEC v. Platforms Wireless International Corp.*, 617 F.3d 1072 (9th Cir. 2010). But *Platforms Wireless* is similarly distinguishable. There, the Ninth Circuit affirmed the district court’s conclusion that a press release was materially misleading because it “only permit[ted] the conclusion that [the company] was announcing it had actually developed a viable ARC system,” when in reality the company only had a design and no money to build even a prototype. *Id.* at 1094. But IonQ’s

statements do not leave a “clear impression that a functioning [system] exists and has been tested.”
See id. at 1095.

The plaintiffs fail to plausibly allege that the defendants made materially false or misleading statements about the 32-qubit system in the Proxy.

b. Error correction

Regarding error correction, the plaintiffs challenge three statements in the Proxy:

- For solid-state architectures, IonQ estimates that *it may take at least 1,000 physical qubits to form a single error-corrected qubit, while for near-term applications with ion traps the ratio is closer to 16:1.*
- Because the ion qubits feature very low idle and native error rates and are highly connected, *IonQ expects the error-correction overhead to be about 16:1 to achieve the first useful quantum applications. This contrasts with other approaches, for which IonQ estimates the overhead to be in the range of 1,000:1 to 100,000:1[.]*
- Compared to the trapped ion approach, the qubits generated via superconducting suffer from short coherence times, high error rates, limited connectivity, *and higher estimated error-correction overhead (ranging from 1,000:1 to 100,000:1 to realize the error-corrected qubits from physical qubits)*

ECF 64, ¶ 269.¹⁴ The plaintiffs allege that these statements were false and misleading because IonQ did not disclose that it was comparing its current system to competitors’ systems from “materially different eras of quantum computing” and that “as both IonQ and its competitors developed useful FTQC machines the difference in error correction would be substantially narrower” than 16:1 versus 1,000:1 or 1 million:1. *Id.* ¶ 270. Specifically, “the estimate of 16 qubits to correct one error referred to IonQ’s *current NISQ-A technology*,” whereas the estimate

¹⁴ Contrary to the plaintiffs’ allegations, the second and third bulleted statements do not appear in the Proxy itself. *See* ECF 75-8. They do, however, appear in the March 30, 2021 Registration Statement. *See* ECF 75-4, at 40, 45.

of competitors' machines referred to "*earlier-phase, more rudimentary NISQ machine[s]*." *Id.* ¶ 131.

The plaintiffs fail to allege with particularity why these statements are false or misleading. Though they provide some general background information about the NISQ and NISQ-A eras of quantum computing, *see id.* ¶ 47, they do not allege facts about the error correction capabilities of rival quantum computers to support their bare assertion that IonQ here alludes to "earlier-phase, more rudimentary NISQ machine[s]." Nor do they allege facts about competitors' current, more advanced machines. CW1 does not address the topic. The Scorpion Report includes an interview with a "leading quantum computing scientist who has known IonQ's founders" and worked on error correction for 20 years. ECF 75-31, at 85. This unnamed expert stated that it is the "elephant in the room" that error correction "necessitates millions of qubits for a computer to be useful" and "slam[s] IonQ's promotion of double-digit qubit systems as 'very, very premature in terms of a scalable technology.'" *Id.* at 88. A former employee said to Scorpion that error correction is a "daunting and unsolved problem" that is "very hard and will likely take a long time." *Id.* at 110. But these interviews do not discuss any particular IonQ system's error correction. More importantly, they do not provide any details whatsoever regarding "solid state architectures," do not discuss the past and current technology of IonQ's competitors' systems, and do not otherwise explain how the Proxy's statements about the differences between IonQ's competitors' approaches and IonQ's trapped ion approach are false or misleading comparisons. The plaintiffs would have the Court accept their bare assertion that IonQ's comparisons are misleading; the PSLRA requires more.

To the extent the plaintiffs allege that IonQ's statements about its own systems' error correction capabilities were false or misleading, the statements themselves and the additional risk

disclosures make that allegation implausible. IonQ said it “estimates” that using its ion trap approach the ratio of physical qubit to error-corrected qubit “is closer to” 16:1. ECF 64, ¶ 269. It “expects” the error-correction overhead to be “about” 16:1 to achieve a system that is actually useful. *Id.* These statements signal that IonQ is providing general estimates about the ion trap approach, not describing actual results from a completed system. Even if these statements were misleading, however, they were not materially so in light of the Proxy’s risk disclosures. The Proxy cautions that “IonQ has not produced a scalable quantum computer and faces significant barriers to [do so] Additional development challenges IonQ is facing include: . . . error correction . . . may not commercialize from the lab and scale as hoped or at all.” ECF 75-8, at 18. These specific risk disclosures alert investors to the uncertainties that the Scorpion Report describes.

The plaintiffs fail to plausibly allege that the defendants made materially false or misleading statements about error correction in the Proxy.

2. Loss causation

The plaintiffs also fail to adequately plead the second element of a Section 14(a) claim: loss causation. To satisfy this element, a plaintiff must plead “a sufficiently direct relationship between the plaintiff’s economic loss and the defendant’s fraudulent conduct.” *Singer*, 883 F.3d at 445 (quotation omitted). *See also Karp v. First Conn. Bancorp, Inc.*, 69 F.4th 223, 235–36 (4th Cir. 2023) (holding that cases discussing loss causation in Section 10(b) context apply in Section 14(a) context). A plaintiff can plead a sufficiently direct relationship by “alleging facts establishing that the defendant’s ‘misrepresentation or omission was one substantial cause of the investment’s decline in value.’” *Singer*, 883 F.3d at 445 (quoting *Katyle v. Penn Nat’l Gaming, Inc.*, 637 F.3d 462, 472 (4th Cir. 2011)). A plaintiff must plead “(1) the exposure of the defendant’s

misrepresentation or omission, i.e., the revelation of new facts suggesting the defendant perpetrated a fraud on the market, and (2) that such exposure resulted in the decline of the defendant's share price." *Id.* (internal quotations omitted).

The Fourth Circuit recognizes that exposure for purposes of loss causation can be alleged pursuant to a "corrective disclosure" theory or a "materialization of a concealed risk" theory. *Id.* at 445. A corrective disclosure theory posits that the defendant itself revealed that it had perpetrated a fraud on the market by making material misrepresentations or omissions. *Id.* A materialization of concealed risk theory contends that "news from another source revealed the company's fraud." *Id.* (citing *Katyle*, 637 F.3d at 477 n.10). Either way, the plaintiffs must allege that the company's statements "concealed something from the market that, when disclosed, negatively affected the value of the security." *Id.* (citing *In re Vivendi, S.A. Sec. Litig.*, 838 F.3d 223, 261–62 (2d Cir. 2016) (emphasis omitted)). And either way, "the plaintiff must show that the loss caused by the alleged fraud results from the 'relevant truth . . . leak[ing] out.'" *Id.* (quoting *In re Vivendi*, 838 F.3d at 261 (quoting *Dura Pharm., Inc. v. Broudo*, 544 U.S. 336, 342 (2005))).

The plaintiffs attribute their losses to the Scorpion Report and the defendants' response to it. To be precise, the plaintiffs claim the "relevant truth"—that IonQ's 32-qubit computer did not exist and that its error correction was worse than stated—was first disclosed to the market in the Scorpion Report (which was published before the market opened on May 3, 2022), and that the report's disclosures caused the price of IonQ's stock to drop that day by 9.03%, falling from \$7.76 per share to \$7.15 per share. ECF 64, ¶ 221. But the plaintiffs acknowledge that the market erased most of those losses the next day, with the price per share rallying to \$7.50. *Id.* ¶ 222. The plaintiffs attribute the second and larger portion of their injury—the subsequent decline from \$7.50 per share on May 4 to \$4.34 per share on May 11—to the defendants' first public statement in

response to the Scorpion Report, which conspicuously did not deny any of its specific claims. *Id.* ¶¶ 222–23.¹⁵ In the plaintiffs’ view, the Scorpion Report—the materialization of a concealed risk—caused their first losses. And the defendants’ May 4 press release, read in conjunction with the Scorpion Report, amounted to a corrective disclosure that caused their second losses. The defendants argue the plaintiffs cannot attribute their losses to the Scorpion Report because it is implausible that investors perceived the unreliable, anonymous report as revealing truths that IonQ concealed from the market.

The plaintiffs’ first loss causation claim—the one that depends entirely on the Scorpion Report—turns on whether an anonymously sourced short-seller report that disclaims its own accuracy can satisfy the loss causation element. The Fourth Circuit has not addressed that question. The Ninth Circuit has twice answered no. *See In re Nektar Therapeutics Sec. Litig.*, 34 F.4th 828 (2022); *Houston Mun. Emp. Pension Sys. v. BofI Holding, Inc. (In re BofI Holding, Inc. Sec. Litig.)*, 977 F.3d 781 (9th Cir. 2020). In the most recent case, *In re Nektar*, the court considered whether an anonymous short-seller report that claimed the results of a pharmaceutical company’s clinical trial were false could serve as a corrective disclosure that caused the company’s stock prices to drop by 7%. 34 F.4th at 833–34, 839–40. *In re Nektar* first considered “whether the court can ‘plausibly infer that the alleged corrective disclosure provided new information to the market that was not yet reflected in the company’s stock price.’” *Id.* at 839 (quoting *In re BofI*, 977 F.3d at 795). It then found that the anonymous short-seller report likely did provide new information to the market—the report “pulled together disparate sources and connected data in ways that were not plainly obvious” and it “compared statements made by [the company] at

¹⁵ The plaintiffs also allege that the defendants made a second, similarly unresponsive statement, but they do not allege that the second statement caused any further decline in the value of the stock. *Id.* ¶ 224.

different conferences and it cross-checked sources provided by [the company].” *Id.* at 840. Nevertheless, the court found that because the report was “authored by anonymous short-sellers who had a financial incentive to convince others to sell” and contained “disclaimers from the authors stating that they made ‘no representation as to the accuracy or completeness of the information set forth in [the report],’” it was “not plausible that the market would perceive the [report] as revealing false statements because the nature of the report means that investors would have taken its ‘contents with a healthy grain of salt.’” *Id.* (quoting *In re BofI*, 977 F.3d at 797). The court held that the report could not establish loss causation. *Id.*

The analysis in *In re Nektar* is persuasive, but only to a point. *In re Nektar* rightly recognized that as a general matter, it is implausible that investors take reports with these indicia of unreliability at face value. *In re Nektar* correctly concluded for that reason that a plaintiff cannot plead loss causation merely by alleging that this sort of report exposed the defendant’s falsehoods to investors.

But even if investors typically take short-seller reports like these with a grain of salt, it does not follow that investors always disregard them entirely. As the Sixth Circuit observed in a decision *In re BofI* relied on, the threshold question is “whether the market could have perceived [the allegation] as true.” *Norfolk Cnty. Ret. Sys. v. Cmty. Health Sys., Inc.*, 877 F.3d 687, 696 (6th Cir. 2017). The answer to that question is context sensitive. Additional specific factual allegations might make it plausible that “the market treat[ed] [the report’s] allegations . . . as sufficiently credible to be acted upon as truth, and the inflation in the stock price attributable to the defendant’s misstatements [wa]s dissipated as a result.” *In re BofI*, 977 F.3d at 792. For instance, imagine that a plaintiff alleged that in the wake of this kind of short-seller report, an influential investment analyst publicly downgraded the stock from a “buy” rating to a “sell” rating on the basis that the

report exposed the truth about an important claim the company made about its product. An allegation like that would make it more plausible that investors perceived the short-seller report as a reason to sell, by illuminating what investors believed about the report. Or imagine that a plaintiff alleged that the short-seller who authored such a report had an unbroken track record of accuracy—despite what the short-seller’s disclaimers, incentives, and anonymous sources might suggest. An allegation like that might make it plausible that “the market treat[ed] [the report’s] allegations . . . as sufficiently credible to be acted upon as truth.” *Id.*

The point is that the Court will not categorically conclude that a plaintiff can never plead this sort of report caused their losses. Additional factual allegations might turn the otherwise implausible claim that this sort of short-seller report exposed the truth to investors into a claim plausible enough to survive a motion to dismiss. There is no reason to convert a rule of thumb into a rule of law. *Cf. Norfolk Cnty. Ret. Sys.*, 877 F.3d at 696 (“[T]he defendants argue, and the district court held, that [a] complaint could not reveal the truth behind their prior alleged misrepresentations because complaints can reveal only allegations rather than truth. Although that proposition might have merit as a general rule, we reject it as a categorical one.”).

Despite those caveats, *In re Nektar*’s analysis disposes of the plaintiffs’ claim that the Scorpion Report caused their initial losses. As in *In re Nektar*, it is implausible that investors believed “the relevant truth” was leaked by an anonymous short-seller report that “cannot and does not provide any representations or warranties with respect to [its] accuracy,” ECF 75-31, at 3; that warns information provided by former IonQ employees “may be outdated,” *id.*; that relies almost exclusively on anonymous sources whose vague and ambiguous statements are not corroborated by independent facts; and whose author “stands to realize significant gains in the event that” the price of IonQ’s securities declines, *id.* In the absence of additional allegations, the nature of the

report—in particular, its disclaimers as to the accuracy of the information it purports to “reveal”—makes it implausible that investors perceived the report as revealing information that IonQ had concealed from the market.

The two cases cited by the plaintiffs in which courts found short-seller reports met the loss causation element are distinguishable and unpersuasive. In *In re Longwei*, the court found, with limited analysis, that a short-seller report with anonymous sources could meet the loss causation element. But there, independent factual allegations corroborated the anonymous statements in the report and there was no suggestion that the report’s author disclaimed its accuracy or completeness. 2014 WL 285103, at *3. Similarly, in *In re Winstar Commc’ns*, No. 01 CV 3014(GBD), 01 CV 11522, 2006 WL 473885, at *14 (S.D.N.Y. Feb. 27, 2006), the court held that a two-page short-seller report that “in fact expose[d] the falsity of defendants’ representations can be sufficient to plead loss causation.” But there was no indication that the report was based on anonymous sources or that its authors disclaimed the report’s accuracy.¹⁶

The plaintiffs’ second loss causation claim is that the defendants’ May 4 press release, read in conjunction with the Scorpion Report, was a corrective disclosure of the truth of the report’s allegations. That claim depends on a series of legal premises: i) that a plaintiff may plead loss causation by the combination of the materialization of a concealed risk and a corrective disclosure;

¹⁶ The plaintiffs’ loss causation claims concerning the defendants’ statements about error correction fail for an additional, independent reason. To plead loss causation, a plaintiff must allege “the revelation of new facts suggesting the defendant perpetrated a fraud on the market.” *Singer*, 883 F.3d at 445 (internal quotation omitted). But as the Court noted when evaluating whether the plaintiffs alleged that the error correction statements were false or misleading, the plaintiffs do not allege that the Scorpion Report revealed any new information about how IonQ’s system’s error correction compared to the systems of its competitors. In consequence, even if the Court were to find that the plaintiffs have alleged adequately that in principle, the Scorpion Report could support their loss causation claims, the Court would not find that they have alleged adequately that the report could sustain their loss causation claims as to the defendants’ remarks about error correction.

ii) that a statement may count as a corrective disclosure even when it does not expressly correct any specific falsehood; and iii) that a statement may count as a corrective disclosure solely by virtue of its failure to deny a third-party's public allegation of a specific falsehood—put simply, that in the right context, an omission is an admission. This loss causation claim fails too because there is no authority for the third premise.

The Fourth Circuit has recognized the first two premises. A plaintiff may plead loss causation based on an amalgamation of the materialization of concealed risks and corrective disclosures. *See Singer*, 883 F.3d at 445. And a plaintiff may attribute their losses to a series of “partial disclosures” through which the truth “gradually emerged”—even when those disclosures do “not precisely identify the misrepresentation or omission about which the plaintiff complains,” but merely “reveal to the market in some sense the fraudulent nature” of the defendant's representations or omissions. *Id.* at 446 (internal quotations omitted). Other circuits also have recognized that a plaintiff may plead loss causation by combining a third-party allegation that would have been insufficient on its own with a subsequent admission by the defendant, *see Norfolk Cnty. Ret. Sys.*, 877 F.3d at 698; *Lloyd v. CVB Fin. Corp.*, 811 F.3d 1200, 1209–11 (9th Cir. 2016), and that a plaintiff “need not allege an outright admission of fraud” to allege a corrective disclosure, *see In re BofI*, 977 F.3d at 800.

But no circuit, including the Fourth Circuit, has ever recognized that a defendant's public statement about an allegation may constitute a corrective disclosure that the allegation is true simply because the defendant's statement does not specifically deny the allegation. While the cases on loss causation do not expressly bar a plaintiff from pleading the defendant's conspicuous failure to deny a claim was, in context, an admission of that claim, no case actually recognizes a non-denial as a corrective disclosure sufficient to allege loss causation either. In the absence of

any authority for that essential premise of the plaintiffs' argument, the Court cannot conclude that they have successfully pled their second loss causation claim.

The plaintiffs do not adequately plead loss causation.

C. Section 10(b) claim

Section 10(b) of the Exchange Act prohibits the use of "any manipulative or deceptive device or contrivance" in connection with the sale of a security in violation of SEC rules. *Yates*, 744 F.3d at 884 (citing 15 U.S.C. § 78j(b)). Rule 10b-5, which implements Section 10(b), makes it unlawful, in connection with the sale of a security:

- (a) To employ any device, scheme, or artifice to defraud,
- (b) To make any untrue statement of a material fact or to omit to state a material fact necessary in order to make the statements made, in the light of the circumstances under which they were made, not misleading, or
- (c) To engage in any act, practice, or course of business which operates or would operate as a fraud or deceit upon any person.

17 C.F.R. § 240.10b-5. Section 10(b) "provides an implied right of action for purchasers or sellers of securities who have been injured by violations of the statute." *Yates*, 744 F.3d at 884 (citing *Stoneridge Inv. Partners v. Sci.-Atlanta, Inc.*, 552 U.S. 148, 157 (2008)).

To state a claim under Section 10(b) and Rule 10b-5, a plaintiff must allege: "(1) a material misrepresentation or omission by the defendant; (2) scienter; (3) a connection between the misrepresentation or omission and the purchase or sale of a security; (4) reliance upon the misrepresentation or omission; (5) economic loss; and (6) loss causation." *Singer*, 883 F.3d at 437 (quoting *Stoneridge*, 552 U.S. at 157).

The plaintiffs allege that, starting with the announcement of the merger agreement between IonQ and dMY on March 8, 2021, the defendants made materially misleading statements with the requisite scienter, leading the investing public to believe that IonQ had made certain breakthroughs

in its quantum computing systems when it had not and that it had tripled contract bookings as a result of new cloud-based customers, rather than a related third-party. The defendants challenge the pleading sufficiency of three of Section 10(b)'s six elements. They argue the plaintiffs have not adequately alleged that they made material misrepresentations or omissions with the requisite scienter and have not adequately pled loss causation. For the following reasons, the Court finds that as to each of the alleged statements, the plaintiffs fail to sufficiently plead the elements of scienter, loss causation, or both.¹⁷

1. Scienter

The PSLRA mandates that, “with respect to *each act or omission alleged*,” a plaintiff must “state with particularity facts giving rise to a *strong inference* that the defendant acted with the required state of mind.” 15 U.S.C. § 78u-4(b)(2)(A) (emphases added). Section 10(b)'s scienter element requires a plaintiff to demonstrate that the defendant possesses “a mental state embracing intent to deceive, manipulate, or defraud.” *Yates*, 744 F.3d at 885 (quoting *Tellabs*, 551 U.S. at 319). At the pleading stage, a complaint that “alleg[es] either intentional or severely reckless conduct” suffices. *Id.* at 884. In the Section 10(b) context, “[r]ecklessness is an act so highly unreasonable and such an extreme departure from the standard of ordinary care as to present a danger of misleading the plaintiff to the extent that the danger was either known to the defendant or so obvious that the defendant must have been aware of it.” *KBC Asset Mgmt. NV v. DXC Tech. Co.*, 19 F.4th 601, 608 (4th Cir. 2021) (quoting *Maguire Fin., LP v. PowerSecure Int’l, Inc.*, 876 F.3d 541, 547 (4th Cir. 2017) (internal quotation omitted)); *Syneos Health*, 2023 WL 4688178, at *3 (“Plaintiffs must raise a strong inference that Defendants intended to deceive them or created

¹⁷ Because the plaintiffs’ failures to sufficiently plead scienter and loss causation are each independent grounds for dismissal, the Court need not address whether they sufficiently plead falsity for their Section 10(b) claim.

such a high risk of misleading them that Defendants must have known that they were being deceptive.” (citation omitted)).

To allege fraud against a corporation, a plaintiff must “allege facts that support a strong inference of scienter with respect to at least one authorized agent of the corporation.” *Matrix Cap. Mgmt. Fund, LP v. BearingPoint, Inc.*, 576 F.3d 172, 182 (4th Cir. 2009) (internal quotation marks omitted). To allege fraud against an individual defendant, a plaintiff “must allege facts supporting a strong inference of scienter as to that person.” *Yates*, 744 F.3d at 885 (citing *Matrix Cap.*, 576 F.3d at 182).

After analyzing each scienter allegation, courts “ultimately evaluate [the] plaintiff[s]’ allegations of scienter holistically” and afford them “the inferential weight warranted by context and common sense.” *Id.* (quoting *Matrix Cap.*, 576 F.3d at 176). The inference of scienter must be “cogent and compelling.” *Maguire Fin.*, 876 F.3d at 547 (quoting *Tellabs*, 551 U.S. at 324). Courts engage in a necessarily “comparative inquiry” by “compar[ing] the malicious and innocent inferences cognizable from the facts pled . . . and only allow[ing] the complaint to survive a motion to dismiss if the malicious inference is at least as compelling as any opposing innocent inference.” *Yates*, 744 F.3d at 885 (quotation omitted); *Syneos Health*, 2023 WL 4688178, at *4 (citing *Tellabs*, 551 U.S. at 324)).

As the Fourth Circuit recently clarified, to raise a strong inference of scienter, the plaintiffs “must address *why* Defendants made those statements.” *Syneos Health*, 2023 WL 4688178, at *4.

The Fourth Circuit instructs that

[e]stablishing this “*why*” requires first showing that Defendants knew the missing information. It also requires showing that Defendants knew that the [contrary or omitted] information was relevant for evaluating their [statements]. And it requires showing that Defendants went ahead and left the information out anyway, with the

intent to mislead Plaintiffs—or at least with a reckless disregard for the risk that leaving the information out would make their [statements] misleading.

Id.

a. Scienter as to the IonQ defendants

The plaintiffs have not alleged scienter adequately as to the IonQ defendants’ statements about the 32-qubit system, miniaturization, and error correction and fidelity rates, nor for their post-merger statements about their contract bookings. But the plaintiffs have adequately alleged scienter as to the defendants’ pre-merger contract bookings statements.

i. Scienter for statements about the 32-qubit system, miniaturization, and error correction and fidelity rates

To “understand the inference of scienter that Plaintiffs urge—*i.e.*, Plaintiffs’ inference about *why* Defendants made the contested statements (or omissions)—we must first identify *how* Defendants’ statements might mislead.” *Syneos Health*, 2023 WL 4688178, at *4. The plaintiffs claim that the statements misled investors into believing that a 32-qubit computer with an expected quantum volume of 4 million existed, that miniaturization was within reach, and that the system’s error fidelity was around 98–99%—when none of these claims was true. As for *why* the defendants made those statements, the plaintiffs contend that the defendants “released false and misleading information to validate the merger and maintain interest in the stock through the lock-up period.” ECF 91, at 59. To establish this “*why*,” the plaintiffs allege that (1) the defendants had actual knowledge of contrary or omitted information; (2) the defendants had a motive to perpetrate the alleged fraud; (3) the defendants’ high-ranking positions indicate that they knew or were reckless to the alleged fraud; and (4) the alleged fraud concerned IonQ’s core operations. The Court considers each scienter allegation before assessing the scienter theory holistically.

1) Knowledge of contrary or omitted information

The plaintiffs allege that the defendants knew or recklessly disregarded material, non-public facts about the 32-qubit system, miniaturization, and error fidelity that render their public statements false or misleading. But for each of these three types of alleged misstatements, the plaintiffs fail to allege the defendants' knowledge of contrary or omitted information with the level of particularity required by the PSLRA. *See* 15 U.S.C. § 78u-4(b)(2)(A) (requiring a plaintiff to “state with particularity facts giving rise to a strong inference that the defendant acted with the required state of mind”).

Start with the defendants' repeated statements touting IonQ's 32-qubit quantum computing system with an expected quantum volume of 4 million. The plaintiffs contend these statements were false because Chapman himself admitted that the system did not exist. To support this claim, they point to the statements in the Scorpion Report of an anonymous former executive who said that when he spoke with Chapman about the 32-qubit machine, Chapman said, “We'll have it one day. We're working on it.” ECF 75-31, at 36. The report does not date this alleged conversation. Nor does the report give any context—what Chapman was asked, in what circumstances, or what the executive's position was. On its own, a vague allegation of an ambiguous conversation cannot raise a strong inference of scienter.¹⁸ *See KBC Asset Mgmt.*, 19 F.4th at 609 (quoting *Yates*, 744

¹⁸ Even if the circumstances surrounding this conversation were pled with more particularity, the allegations still would not give rise to a strong inference of scienter. The reason: the plaintiffs fail to sufficiently explain how Chapman's statement that “we're working on it” demonstrates that he knew or recklessly disregarded the risk that the system did not exist at all. The ex-employees interviewed by Scorpion do not state that Chapman knew the system did not exist. Instead, one ex-executive stated, “There's a machine in development, and they hope that it will be able to do it, but it hasn't done it yet.” ECF 75-31, at 55–56. Another ex-employee indicated that IonQ had not promised a certain delivery date of the 32-qubit system with a 4 million estimated quantum volume. Just as these conversations do not indicate that statements about the 32-qubit system were materially false or misleading, so they do not support an inference that Chapman knew, in October 2020 or afterwards, that the 32-qubit system did not exist. Likewise, CW1's inability to get his

F.3d at 885–86) (stating allegations of confidential witnesses may support an inference of scienter but they “will only be afforded the weight they are due given their indicia of reliability, and any ‘[o]missions and ambiguities count against’ an inference of scienter.”). Apart from this conversation, the plaintiffs offer no other particularized allegations that Chapman or Kramer knew that the 32-qubit system did not exist.

As for miniaturization, the plaintiffs challenge statements that “IonQ’s technology is *uniquely easy to manufacture*” and IonQ had “*this manufacture ability of miniaturization advantages*” that gave IonQ a “*tremendous lead over other quantum players.*” ECF 64, ¶ 109. They point to slides in the Roadshow Presentation and elsewhere that depict an IonQ ion trap as 2 inches wide and a sleek 2023 “Rackmount” box, about which Chapman stated, “our goal is, by 2023, *to build a relatively low-cost rack mounted, room temperature system.*” *Id.* ¶¶ 110, 113. And they allege that Chapman knew facts adverse to these statements about miniaturization, based on CW1’s statement that Chapman had “no roadmap” to miniaturize IonQ’s quantum computing systems. ECF 64, ¶ 225(c). But the plaintiffs do not plead this statement with particularity. CW1 does not allege he had a single conversation with Chapman about miniaturization. Other than the fact that CW1 reported to Chapman, CW1 does not identify any facts that make it plausible that CW1 would know Chapman had no roadmap to miniaturization. The allegations are too ambiguous and unreliable to raise a strong inference that Chapman knew or recklessly disregarded that the miniaturization statements were misleading. Beyond CW1’s vague allegations, the plaintiffs cite no other facts supporting their claim that Chapman knew miniaturization was not

colleagues to provide straight answers to his vague questions “about the 32-qubit computer” does not reveal that Chapman knew or recklessly disregarded that the 32-qubit system did not exist.

possible. And there are no particularized allegations regarding Kramer’s knowledge of the firm’s progress on miniaturization.

As for error fidelity, the plaintiffs offer even less. They never allege that the defendants knew the results of the experiments run by Scorpion’s hired experts. They never allege that the defendants knew that an unnamed executive of an unidentified IonQ partner observed 70% fidelity rates running unspecified algorithms. They offer no indication that the defendants knew or recklessly disregarded the risk that the stated fidelity rate of 98–99% was false or misleading.

“Smoking-gun allegation[s are] not necessary to support an inference of scienter.” *Cozzarelli*, 549 F.3d at 626 (citing *Tellabs*, 551 U.S. at 324). But the plaintiffs still must raise a strong inference of scienter through indirect and circumstantial allegations. *Id.* The plaintiffs do not plead with sufficient particularity any allegations that the defendants actually knew contrary or omitted information. On their own, the little they allege does not raise a strong inference of scienter.

2) High-ranking positions

The plaintiffs next claim that Chapman and Kramer, as IonQ’s CEO and CFO, must have known about the omitted or contrary information. The Fourth Circuit rejects contentions that “individual defendants must have acted intentionally or recklessly with respect to [the alleged misstatements] merely because . . . they were senior executives” *Yates*, 744 F.3d at 890. Instead, the plaintiffs also must provide “additional detailed allegations establishing the defendants’ *actual exposure* to the [alleged] problem.” *Id.* (emphasis added). They have not provided any here. The amended complaint contains no particularized allegations that the defendants were exposed to the purported issues with the 32-qubit computer, the prospects of

miniaturization, or error fidelity. The mere fact that Chapman and Kramer were senior executives does not, on its own, raise a strong inference of scienter. *See id.*¹⁹

3) Core operations

The plaintiffs also rely on the core operations doctrine. Under this doctrine, if a senior executive's alleged misstatements are related to his company's core operations, he is more likely to have known that his statements were false. *See KBC Asset Mgmt.*, 19 F.4th at 612. Certainly, the 32-qubit quantum computing system, IonQ's miniaturization progress, and error fidelity were related to the core operations of IonQ, a quantum computing developer. But once again, these generalized allegations must be accompanied by particularized allegations that a defendant was aware of problems affecting the core operations. *Yates*, 744 F.3d at 890. Otherwise, "bare allegations that officers must have had knowledge of key facts relating to the business's core operations are rarely enough to support a strong inference of scienter." *Id.* (quoting *Zucco Partners, LLC v. Digimarc Corp.*, 552 F.3d 981, 991 (9th Cir. 2009) (internal quotations omitted)).²⁰ As discussed, the plaintiffs here offer no such particularized allegations indicating either Chapman or Kramer knew the relevant facts.

¹⁹ Nor does the fact that Chapman and Kramer signed Sarbanes-Oxley Act certifications attached to SEC filings. *See* ECF 64, ¶¶ 218–20, 225(h). "It is well established that scienter cannot be inferred from the signing of a Sarbanes-Oxley certification. *Proter v. Medifast, Inc.*, No. GLR-11-720, 2013 WL 1316034, at *16 (D. Md. Mar. 28, 2013) (citing *Cozzarelli*, 549 F.3d at 628 n.2, and *In re Constellation Energy Grp., Inc. Sec. Litig.*, 738 F. Supp. 2d 614, 638 n.24 (D. Md. 2010)).

²⁰ The plaintiffs' cited authorities reinforce, rather than undermine, this point. Each cited opinion either explicitly acknowledges that a core operations theory may not, on its own, support a strong inference of scienter, or else finds that the plaintiffs have offered sufficient particularized allegations in addition to asserting this theory. *See Sinnathurai v. Novavax, Inc.*, --- F. Supp. 3d ---, No. TDC-21-2910, 2022 WL 17585715, at *22 (D. Md. Dec. 12, 2022) (noting that while a core operations theory is relevant, it is "not sufficient to establish scienter by itself"); *In re 2U*, Nos. TDC-19-3455, TDC-20-1006, 2021 WL 3418841 (D. Md. Aug. 5, 2021) (holding that scienter was satisfied because, *inter alia*, plaintiffs identified former employees "who had specific knowledge that [the defendants] were aware of" omitted facts); *Kiken v. Lumber Liquidators Holdings, Inc.*, 155 F. Supp. 3d 593, 606 (E.D. Va. 2015) (evaluating core operations theory

4) Motive

Finally, the plaintiffs allege that Chapman and Kramer had “powerful motives to inflate the Company’s share price because they had massive amounts of IonQ stock” from which they could profit if the merger were approved and the share price remained high. ECF 64, ¶ 229 (noting Chapman had at least 3,913,501 shares worth \$61,285,425 within a month after the merger and Kramer had 675,464 shares worth \$10,577,766). But “a strong inference of fraud does not arise merely from seeking capital to support a risky venture,” like effecting a merger to bring a company public, and the “motivations to raise capital or increase one’s own compensation are common to every company and thus add little to an inference of fraud.” *Cozzarelli*, 549 F.3d at 627.²¹ Instead, to “support a claim of motive based on the benefit a defendant derives from an increase in the

alongside three other factors supporting scienter); *In re Genworth Fin. Inc. Sec. Litig.*, 103 F. Supp. 3d 759, 784 (E.D. Va. 2015) (noting that “it cannot be concluded that Defendants acted intentionally or recklessly on [the fact that certain business was part of the company’s core operations] alone”); *KBC Asset Mgmt.*, 2016 WL 3981236 (noting that “speaking about these core operations, without more, is insufficient to establish scienter”). The plaintiffs cite, in a footnote in their opposition, seven other district court cases from outside the Fourth Circuit that are distinguishable for similar reasons, with the possible exception of *In re Hi-Crush Partners L.P. Sec. Litig.*, No. 12 Civ. 8557(CM), 2013 WL 6233561 (S.D.N.Y. Dec. 2, 2013). There, the court relied on both the core operations doctrine and the defendants’ high-ranking positions to conclude that the plaintiffs had adequately pled scienter. It did not, however, find that the core operations doctrine alone raised a strong inference of scienter. *See id.* at *26.

²¹ The plaintiffs argue that because the defendants stood to lose everything if the merger were not approved, their motivations to commit fraud were stronger than a generic desire for a business to succeed. But their cited cases do not support the proposition that a defendant’s strong financial stake, without more, raises a strong inference of scienter. *See Lemen v. Redwire Corp.*, No. 3:21-cv-1254-TJC-PDB, 2023 WL 2598402, at * (M.D. Fla. Mar. 22, 2023) (finding scienter adequately pled where plaintiffs alleged “several motives”); *Nathenson v. Zonagen Inc.*, 267 F.3d 400, 424–25 (5th Cir. 2001) (finding scienter adequately pled, “if perhaps only barely so,” based on importance of company’s single product and “a number of special circumstances”); *In re Cabletron Sys., Inc.*, 311 F.3d 11, 39 (1st Cir. 2002) (finding scienter adequately pled based on allegations that the company’s survival was at stake plus other allegations, including insider training); *Howard v. Everex Sys., Inc.*, 228 F.3d 1057, 1064 (9th Cir. 2000) (finding scienter adequately pled based on possible motive combined with allegations of ignored red flags).

value of his holdings, a plaintiff must demonstrate some sale of ‘personally-held stock’ or ‘insider trading’ by the defendant.” *Phillips v. LCI Int’l, Inc.*, 190 F.3d 609, 622 (4th Cir. 1999). The plaintiffs make no such allegations against either Chapman or Kramer. *See id.* (affirming dismissal of complaint that failed to allege specific facts sufficient to demonstrate scienter where the plaintiffs offered no allegations of stock sales or insider trading). While the absence of motive is not fatal to the plaintiffs’ suit, their motive allegations do not raise a strong inference of scienter. *See Tellabs*, 551 U.S. at 325.

5) Holistic analysis

The plaintiffs advance a malicious inference that, contrary to public statements, the defendants knew that IonQ had not created a 32-qubit computer, that it was not close to miniaturizing its systems, and that its quantum computing systems had poor error fidelity rates. Yet the plaintiffs do not allege particularized facts that support this malicious inference. The utter absence of particularized facts weakens any malicious inference that may be drawn from Chapman and Kramer’s high-ranking positions or IonQ’s core operations. Of course, it is implausible that IonQ’s senior executives were totally in the dark as to whether an entire quantum computing system existed. *See Sinnathurai v. Novavax, Inc.*, --- F. Supp. 3d ---, No. TDC-21-2910, 2022 WL 17585715, at *22 (D. Md. Dec. 12, 2022) (noting that it would be “absurd” to think that the CEO and CFO of a company would be unaware of alleged manufacturing and quality control problems where conditions of manufacturing were crucial to the company (citation omitted)). In a similar vein, it is implausible that Chapman or Kramer had no insight into the company’s miniaturization progress or the fidelity rates of its systems. After all, in this field, fidelity rates are key determinants of the systems’ efficacy. This is particularly so given that the defendants repeatedly stressed these very topics in their statements to the public. *See Zak*, 780 F.3d at 610 n.7 (holding

that “the nature of the alleged misstatements and omissions themselves give rise to a strong inference of scienter”). But to raise a strong inference of scienter, the plaintiffs must do more than show that the defendants knew that the 32-qubit system did not exist, that miniaturization progress was slow, or that error fidelity rates were low. “Simply knowing this information would not be enough for scienter.” *Syneos Health*, 2023 WL 4688178, at *5. Instead, “Defendants would have to know—or, at a bare minimum, be reckless to a risk—that declining to share that information would render their [statements] *misleading* for investors.” *Id.* (citing *Maguire Fin.*, 876 F.3d at 548).

Viewed holistically, the plaintiffs’ allegations do not raise a strong inference that the defendants knew or recklessly disregarded a risk that their statements would mislead investors. While the plaintiffs are correct that the “nature of the alleged misstatements and omissions themselves” can give rise to a strong inference of scienter, the defendants’ risk disclosures and cautionary statements about the possibility that the technology might never make it to market undermine, rather than support, scienter. *Zak*, 780 F.3d at 610 n.7.

With respect to the 32-qubit computer with an estimated quantum volume of 4 million, IonQ stated in December 2020—several months before the Class Period began—that “we’re working to build the world’s most powerful quantum computers Our recently announced 32 qubit system *is expected* to feature 22 Algorithmic Qubits, and this system is but the first of three new systems already in development.” ECF 75-46, at 5 (emphasis added). Throughout the Class Period, IonQ stated that the 32-qubit quantum computer had an “expected” quantum volume, not a final or realized amount.²² And in IonQ’s public disclosures during the Class Period, IonQ stated

²² For instance, one slide in the Roadshow Presentation noted that the 4 million quantum volume figure is an “[e]stimated quantum volume of IonQ’s 5th generation system—assumes 32 qubits with 99.9% fidelity two qubit-gates **based on internal preliminary results.**” ECF 75-10, at 20

that the 32-qubit system was “not yet available for customers and may never be available” and IonQ “has only commercialized a quantum computer with 11 algorithmic qubits.” ECF 75-4, at 11, 17.

These statements do not support the malicious inference that the defendants spun the existence of the 32-qubit computer with an expected quantum volume of 4 million out of whole cloth. They support the innocent inference that the defendants touted what they considered to be a technological breakthrough, while freely disclosing that the 32-qubit computer was not yet a commercially viable system and might never be. That innocent inference is more compelling.

The same is true for the alleged misstatements regarding miniaturization and error fidelity. IonQ’s public disclaimers stated that “IonQ has not produced a scalable quantum computer and faces significant barriers to [do so] Additional development challenges IonQ is facing include: Gate fidelity, error correction, and miniaturization may not commercialize from the lab and scale as hoped or at all.” *Id.* at 16. And even before these disclaimers were filed, the defendants’ Roadshow Presentation included certain caveats, including that the sleek-looking systems in the pictures were “prototypes.” *See* ECF 75-10, at 23 (noting that picture of ion trap and vacuum chamber “is a prototype”); *id.* at 24 (noting that picture of chip projected for 2023 is “a project of MIT . . . not IonQ. Used for illustrative purposes only”); *id.* at 25 (noting that picture of 2021

n.1 (emphasis in original). The ex-employees quoted in the Scorpion Report certainly disagree with IonQ’s choice to announce a 32-qubit computer based on an estimated quantum volume. And they mock IonQ’s reliance on “algorithmic qubits.” But IonQ did not hide its methodology. The alleged statements disclose these assumptions upfront. That hardly supports an inference of wrongful intent to mislead. *See Lerner v. Nw. Biotherapeutics*, 273 F. Supp. 3d 573, 692 (D. Md. 2017) (noting, in falsity context, that a “disagree[ment] with Defendants’ methodology, interpretation of the data, or expressions of optimism . . . fail[s] to allege how these statements are false or misleading”).

Benchtop system is a “prototype” and picture of system projected for 2023 is an “[i]llustrative rendering of a potential form-factor for rackmount QPU. Not a designed system”).

When the scienter allegations are viewed holistically, the innocent inference is more compelling than the malicious one. The defendants painted an optimistic picture about the promise of their quantum computing systems. But they believed they adequately disclosed to investors the risks of investing in a highly complex and emerging technology. The plaintiffs fail to raise a strong inference of scienter as to statements about the existence of IonQ’s 32-qubit system, miniaturization prospects, and error fidelity rates.

ii. Scienter for statements about contract bookings

By contrast, the Court finds that the plaintiffs adequately allege scienter as to the IonQ defendants’ pre-merger statements about contract bookings. The plaintiffs allege that in the final weeks leading up to the merger vote, the defendants knew or recklessly disregarded a risk that their statements touting tripled contract bookings would mislead investors. The Court once again first considers *how* these statements might mislead. The plaintiffs allege that the defendants’ statements about contract bookings omitted that the funding increase from \$5 million to \$15 million was attributable to UMD’s investment, leaving investors with the misimpression that the funding bump was due to an influx of new customers, particularly enterprise users accessing IonQ’s computing resources via the cloud. As for *why* the defendants made those misleading statements, the plaintiffs contend they were attempting to induce shareholders to approve the merger in the three weeks leading up to the shareholder vote. For support, they claim that when IonQ announced the funding increase, the defendants knew that UMD, not cloud-based business customers, had provided most of the funding—a fact the defendants ultimately disclosed. *See* ECF 75-11, at 4 (Form 10Q filed on November 15, listing under “Related Party Transactions” that “[i]n

September 2021, the Company entered into a multiyear deal with UMD . . . in exchange for payments totaling \$14 million”).

As with the technology-related statements, merely pleading the defendants knew that fact does not raise a cogent inference that the defendants “kn[e]w—or, at a bare minimum, [were] reckless to a risk—that declining to share that information would render their [statements] *misleading* for investors.” *Syneos Health*, 2023 WL 4688178, at *5. The plaintiffs also must plead that the defendants knew that their omissions compromised investors’ ability to evaluate their claims and that the defendants “went ahead and left the information out anyway.” *Id.* at *4. And they do. The plaintiffs plead—and the exhibits the Court found that it could consider confirm—that during the lead up to the merger vote, every time the defendants mentioned the tripled bookings, they omitted the connection between that increase and UMD, and that conversely, every time that the defendants mentioned the deal with UMD, they omitted the connection between that partnership and the bookings increase. The plaintiffs plead that this persistent pattern of statements and omissions evinces at least recklessness to the risk of creating the misimpression that the two announcements described distinct sources of good news for the company, rather than one source. To be sure, the defendants eventually disclosed the true significance of the UMD deal, but only after investors approved the merger. For that reason, their disclosures make the innocent inference more compelling as to the post-merger remarks, but the disclosures do not make the culpable inference any less compelling with respect to the pre-merger remarks.

1) The allegations

The alleged pattern of statements and omissions began the day the defendants made the first announcement. On September 8, the defendants announced a partnership between IonQ and UMD in which UMD “would invest \$20 million to create the [Q-Lab]” for UMD affiliates to use

IonQ's systems. ECF 64, ¶ 136. The announcement made no mention of an increase in contract bookings.

The next day, the defendants issued the Bookings Release, trumpeting that it had tripled contract bookings—without linking any of that growth to the deal with UMD, much less attributing it all to the new partnership. *Id.* ¶ 138; ECF 75-49, at 2. If anything, the defendants insinuated that the two were independent. For instance, the company spelled out what it hoped investors would take away from the new bookings forecast: “[T]his commercial success demonstrates the real and rapidly accelerating need for quantum computing among *enterprise customers*.” ECF 75-49, at 2 (emphasis added). Elsewhere in the release, Chapman added, “We could not be more thrilled with the progress we are seeing in IonQ’s commercial efforts as *a growing number of customers* are adopting quantum computing.” *Id.* The release did mention academia, but almost as an afterthought, quoting Chapman saying, “We are bringing quantum computing to the Fortune 500, along with leading governmental and academic institutions.” *Id.* And after hailing the increase, the Bookings Release continued:

IonQ recent operating momentum includes:

- A deal with the University of Maryland to create the National Quantum Lab, the world’s first on-campus, commercial-grade quantum user facility, as part of the University’s \$20 million initiative to invest in quantum computing.
- Unveiling the industry’s first Reconfigurable Multicore Quantum Architecture technology, which allows IonQ to dramatically increase the number of qubits and resulting power of its quantum computing systems.
- Availability on Google Cloud Marketplace, making IonQ the first quantum computing hardware provider on the platform, and the only supplier whose quantum systems are available on all three major cloud providers, including Microsoft Azure and Amazon Web Services.
- Integration with IBM’s Qiskit quantum software development kit, lowering the barrier to entry for quantum programmers to drive innovation using IonQ’s quantum hardware.

- Partnership with SoftBank Investment Advisors to deploy quantum-first solutions in large enterprises around the world.

Id. That is, the Bookings Release identified the Q-Lab partnership with UMD as one among many independent arrangements IonQ had with outside partners, unrelated to the bookings increase, rather than the overwhelming if not sole source of the bookings increase.

On September 13, the defendants again heralded the tripled contract bookings without connecting it to the UMD deal and described the UMD deal without linking it to the bookings increase. In a slide deck for investors filed with the SEC, the defendants stated that IonQ was “Projecting 3x Increase in 2021 Contract Bookings.” ECF 64, ¶ 207; ECF 75-47, at 6. That statement included a footnote with the caveat that “[b]ookings may include prepayments, cloud-based revenue, and signed contracts for future performance,” but it made no mention of the deal the defendants had just announced with UMD. ECF 75-47, at 6. Ten slides later, in a section listing many “Partnership Updates,” the presentation described the UMD deal without identifying it as the driving force behind the bookings increase. *Id.* at 16. Still later, IonQ dedicated an entire slide to explaining the bookings increase. *Id.* at 19; ECF 64, ¶ 208. Yet even the text beneath the header “Key Drivers & Commentary” did not comment on the key driver of the increase: the partnership with UMD. ECF 75-47, at 19.

During the September 14 IPO Edge Chat, Kramer went further, uniting omission with misrepresentation. When Kramer was asked to “[t]ell us a bit more about” the tripling of bookings, ECF 64, ¶ 142, he indicated that cloud users drove that growth. “[W]e *are anticipating \$5 million in economic value generated from contracts in cloud* for this year 2021,” he began. *Id.* “And only last week, we announced that *we will raise this guidance target*”—that is, guidance on “economic value generated from contracts in cloud”—“*to three times [] five. And we now anticipate coming in at \$15 million by year end.*” *Id.* Instead of even mentioning UMD in

connection with the bookings increase, he attributed it to cloud users. In fact, at another point in the call, “he characterized the [UMD] lab as a separate project designed to educate future quantum programmers.” *Id.*

The September 20 Business Update Call was much the same. Kramer described the UMD deal without mentioning the bookings increase and described the bookings increase without mentioning the UMD deal:

Earlier this month, we announced a multi-year commercial deal with the University of Maryland to create the National Quantum Lab at Maryland, or Q-Lab. This will be the nation’s first user facility that enables the scientific community to pursue world-leading research through hands-on access to a commercial-grade quantum computer. This deal is a part of UMD’s recent \$20 million initiative to invest in quantum computing and will provide the university unrivaled access to IonQ’s trapped-ion quantum computer hardware, as well as the ability to work closely with our scientists and engineers. The Q-Lab will unite leaders in science, engineering, and computing and empower them to work together to develop novel quantum applications.

...

Earlier this month, we announced that we were on track to significantly exceed our previously announced 2021 bookings target of \$5 million, and instead expect to end up at \$15 million for the full year. This is a powerful demonstration of the results of our commercialization efforts, and that real quantum cases are here, right now. While we are still in early days, there is already tangible demand for quantum computing power, and we believe this is just the beginning of our monetization story.

ECF 75-54, at 5, 6. Kramer dated each event to “[e]arlier this month,” but he never specified that they occurred on the same day, let alone that they were one and the same event. He described the UMD deal as a “\$20 million initiative” and identified the bookings target as “\$15 million for the full year,” but he never even hinted that these figures were related.

In the final days before the vote on the merger, a reasonable investor might well have thought that if the Q-Lab partnership and the increased bookings were related—let alone two aspects of the same event—the defendants would have said so on any of the at least five occasions

when they spoke about one, the other, or both. Not only did the defendants allegedly decline to dispel the impression that the announcements were independent, their alleged statements and omissions also created it.

After investors approved the merger, the defendants allegedly continued this pattern of misleading statements and omissions. ECF 64, ¶¶ 213–16. The plaintiffs allege that on November 15, the defendants published a press release attributing the tripling of contract bookings to “growing demand for IonQ’s industry-leading trapped-ion hardware.” *Id.* ¶ 213. They further allege that on the Third Quarter earnings call that same day, Chapman reiterated that the company had tripled contract bookings and Kramer discussed the bookings increase and the UMD deal separately. *Id.* ¶ 145. During the question-and-answer portion of the call, Chapman and Kramer each faced questions about the source of the bookings increase, yet neither mentioned UMD. *Id.* ¶¶ 146–47.

2) Holistic analysis: pre-merger remarks

The plaintiffs advance the malicious inference that the defendants knew that the deal with UMD was responsible for virtually all the tripling of contract bookings, knew that this information was relevant to an accurate evaluation of the company by investors, and intentionally or recklessly omitted it anyway. As to the pre-merger remarks, that inference is at least as compelling, viewed holistically, as the innocent inferences that the defendants did not know that information was relevant or thought their audience already knew it.

First, the plaintiffs plausibly allege that the defendants actually knew that the Q-Lab partnership with UMD was the source of the increase in contract bookings when they made the false or misleading statements before the merger vote. As the Fourth Circuit has acknowledged, “the fact that a defendant publishes statements when in possession of facts suggesting that the

statements are false is classic evidence of scienter.” *SEC v. Pirate Inv. LLC*, 580 F.3d 233, 243 (4th Cir. 2009) (internal quotation omitted). That logic remains persuasive when a defendant publishes statements that are merely misleading. So the plausible allegation that the defendants made these statements knowing that UMD was the central source of the contract bookings increase supports the malicious inference.

Second, the pattern of statements and omissions alleged in detail by the plaintiffs warrants the inference that the defendants “kn[e]w—or, at a bare minimum, [were] reckless to a risk—that declining to share that information would render their [statements] *misleading* for investors.” *Syneos Health*, 2023 WL 4688178, at *5. The Fourth Circuit has been clear that in some cases, “the nature of the alleged misstatements and omissions themselves give[s] rise to a strong inference of scienter.” *Zak*, 780 F.3d at 610 n.7. *Cf. Inst’l Inv. Grp. v. Avaya, Inc.*, 564 F.3d 242, 269–70 (3d Cir. 2009) (“[T]he most powerful evidence of scienter is the content and context of [the defendant]’s statements.”). That is the case here. Reconsider the fact that the defendants first announced IonQ’s partnership with UMD and the tripled bookings projection separately, one day after another. Why did they announce the partnership and omit one of its most important benefits for the company? And why, the next day, did they herald that benefit without identifying its cause? Without more, perhaps a more reasonable inference might be that they made these announcements on separate days as part of an ambitious communications strategy—a way to wring two days of positive press out of one piece of news. But the second announcement came and went without so much as acknowledging a connection to the first, so a different explanation looks at least as compelling: the defendants wanted to create the misimpression that these announcements were independent (or at least they disregarded a serious risk of creating that misimpression).

The defendants' pattern of statements and omissions in the subsequent weeks speaks to a decision not to disclose that the two were connected. It defies "common sense," *Yates*, 744 F.3d at 885 (quoting *Matrix Cap.*, 576 F.3d at 176), to think that this clean, consistent, and counterintuitive separation of the two announcements by multiple people in multiple fora over multiple weeks was merely a coincidence. And that decision makes more sense if the defendants thought that the omitted information was relevant but harmful to their interests than it does if the defendants thought that the omitted information was irrelevant or already known. In the latter cases, they might not have made an effort to highlight the connection, but they would not have adopted a policy of avoiding it either—let alone affirmatively misrepresented that "contracts in cloud" drove the bookings increase.

A similar pattern supported scienter in *Singer*. There, the Fourth Circuit found the plaintiffs had sufficiently pled scienter in significant part because they alleged a series of omissions in the defendants' statements about the sources of their revenue. The defendants' "recurring omissions" struck the Court as "particularly remarkable" because the defendants repeatedly left out "the primary source of [the company's] continuing revenues, while the strategies discussed in the [their] various statements generated far less significant returns." *Singer*, 883 F.3d at 444. So too here. The defendants' recurring omission of the Q-Lab partnership from their accounts of the increase in contract bookings is "particularly remarkable" because they repeatedly did not mention "the primary source" of this new revenue, "while the strategies discussed" in their statements—cloud-based user growth—"generated far less significant returns." *Id.*

Perhaps if the defendants had never made any affirmative statements about the reason contract bookings spiked, their failure to declare that UMD was the cause would not have warranted an inference of intentional or reckless deception. But because "companies can control

what they have to disclose . . . by controlling what they say to the market,” *Matrixx Initiatives*, 563 U.S. at 45, the defendants’ omissions “must be viewed under Section 10(b) and Rule 10b–5(b) in the context of the statements that they affirmatively elected to make,” *Zak*, 780 F.3d at 609. In that context, the defendants’ pattern of affirmative statements and omissions justifies the inference that the defendants knew or recklessly disregarded the risk that investors would be misled into believing that a growing and diversifying base of cloud-based enterprise users drove the bookings increase.

Finally, although the plaintiffs’ allegations about the defendants’ motive cannot sustain the malicious inference on their own, they modestly reinforce it. As the plaintiffs plead, the defendants “were desperate to find a way to convince investors of the strength of IonQ’s current and future fiscal condition,” *id.* ¶ 135, to get the merger approved—a time-sensitive aim “fundamental to [the defendants’] financial success,” *Singer*, 883 F.3d at 444. Creating the misimpression that new cloud customers tripled IonQ’s contract bookings—or at least recklessly sowing the seeds of that misimpression—would help in two ways. First, that misimpression would suggest that IonQ had secured two new sources of revenue—the Q-Lab partnership with UMD and the tripled bookings—when in fact, IonQ had secured only one. Second, it would suggest that IonQ had secured new, cloud-based business customers—expanding and diversifying its client base—when in fact, a single longstanding academic partner drove the revenue bump. As plaintiffs tell it, at a decisive moment for the future of IonQ, the defendants depended on the misimpression their remarks and omissions had created. The defendants counter that the plaintiffs have failed to distinguish their alleged motivation from the ordinary profit motive, *see Ottman v. Hanger Orthopedic Grp., Inc.*, 353 F.3d 338, 352 (4th Cir. 2003), or a generic desire to boost the value of their stock, *see Boykin v. K12, Inc.*, 54 F.4th 175, 186 (4th Cir. 2022). As discussed above with

respect to the defendants' statements about IonQ's technology, neither of those motives would suffice to establish scienter. But even if that motive allegation would not warrant the malicious inference on its own, it is enough to distinguish this case from cases in which the Fourth Circuit has demanded stronger allegations of other facts supporting scienter to offset the lack of any plausible motive. *See, e.g., Syneos Health*, 2023 WL 4688178, at *5. While motive can support scienter, it is not a necessary condition. *See Tellabs*, 551 U.S. at 325.

Bond persuasively analyzes similar facts. 587 F. Supp. 3d 641. There, the plaintiffs alleged (in relevant part) that the defendants publicly attributed their company's growth to one cause (the attractiveness of its offerings, particularly physicians' uptake of their "Clover Assistant" software) when their growth actually stemmed from other causes (bribery and one employee's local network). *Id.* at 660–61. After finding that the defendants' public statements about the company's growth were material and misleading, *id.* at 669–72, the court found "a strong inference of scienter with regard to [the company] and each of the individual defendants," *id.* at 679. *Bond*'s rationale is simple: The plaintiffs plausibly alleged that the defendants knew or had strong reason to know the real cause of the company's growth, *id.* at 676–78, yet the defendants nevertheless made statements that they knew or had reason to know would mislead investors into thinking that the cause was something else, *id.* at 679. That is what the plaintiffs allege happened here. Of course, the real and attributed causes in this case are less dramatic than those in *Bond*. But the logic justifying the malicious inference is much the same.

The defendants do not respond directly to the plaintiffs' arguments for scienter as to the pre-merger contract bookings statements, save to contest the plaintiffs' assertions about their motive. ECF 75-1, 30–33; ECF 92, 16–19. But even construing their other arguments about these

statements as arguments against scienter, their responses do not make the innocent inferences more compelling than the malicious one.

First, if the defendants had disclosed that the UMD partnership was responsible for the increase in contract bookings, that would support the innocent inference that they did not mention it in the statements the plaintiffs cite because the defendants thought the public already understood. The defendants say that they disclosed that the UMD contract accounted for “the vast majority of the upward revision in bookings.” ECF 75-1, at 29. But they omit that they made that disclosure on November 15, weeks after the merger vote had taken place. ECF 75-11, at 27. They also cautioned that they “actually don’t know who all of the customers are,” ECF 75-48, at 6, and that their bookings projections might include “large contracts where customers pay for reserved computer access,” not just “transactional-based cloud revenue,” *id.* at 4. But they offered those caveats after the merger vote as well. *Id.* at 2. True enough, before the vote the defendants noted that “[b]ookings may include prepayments, cloud-based revenue, and signed contracts for future performance.” ECF 75-47, at 6. Taken in isolation, that statement lends some credence to the innocent inference that the defendants thought they had adequately signaled to investors that large contract deals were one source of their increased projected bookings, but not enough to make that inference more compelling than the malicious one. The plaintiffs allege that the statements and omissions at issue were misleading in multiple respects: as to how much of the growth came from cloud-based users versus from prepayments and future performance contracts, how much of the growth came from new customers versus existing customers, and how much came from enterprise users versus from education and research users. Each of those dimensions was relevant to what investors could glean from the bookings increase about the present and future value of IonQ. But at most, this caveat addressed only one dimension. And of course, that single statement cannot be

taken in isolation. Considered holistically alongside the pattern of statements describing the tripling of bookings without attributing that to the UMD deal and describing the UMD deal without crediting it for tripling bookings, that single disclosure does not make the innocent inference more compelling than the inference of intentional or reckless deception.

Second, the defendants also contend that two of the statements the plaintiffs cite, “*a growing number of customers are adopting quantum computing*” and “[t]he market for quantum computing is growing at a rapid pace, and IonQ is both driving and capturing that increased demand,” were not misleading because they were compatible with IonQ’s initial bookings forecast of \$5 million. ECF 75-1, at 29. That might suggest that the defendants did not make these statements with the intent to mislead investors or a reckless disregard for the risk of misleading investors. But these are hardly the only statements the plaintiffs take issue with, or even the main ones. Even if the defendants are right about these statements, the plaintiffs have still said enough to allege scienter as to the others. The defendants’ counterarguments (such as they are) do not change the conclusion that the malicious inference is at least as compelling as the innocent alternatives.

3) Holistic analysis: post-merger remarks

As to the post-merger remarks, the malicious inference is not as compelling as the innocent inference that the defendants believed that they had already adequately disclosed the source of the new bookings. That is because on November 15—the day of the press release and earnings call the plaintiffs cite—the defendants disclosed the details of the UMD deal in an SEC filing and hedged their public remarks about the sources of the bookings increase. The Form 10Q the defendants filed that day identified the UMD deal as a “Related Party Transaction[.]” and reported that “the Company entered into a multiyear deal with UMD to provide certain quantum computing

services . . . in exchange for payments totaling \$14 million.” ECF 75-11, at 4. On that day’s earnings call, the defendants were careful to suggest that deals like the one with UMD contributed significantly to the company’s bookings revenue. For instance, in his prepared remarks on the call, Kramer said:

Given that we are still at the beginning of our commercialization phase and that in addition to transactional-based cloud revenue, *we sell large contracts where customers pay for reserved compute access*, we should expect *bookings to continue to be lumpy* for quite some time.

ECF 75-48, at 4 (emphasis added).²³

Especially against the backdrop of the pre-merger remarks, the defendants’ post-merger statements could have been clearer. But viewed holistically, these statements—which disclosed the UMD deal and indicated that contract bookings projections included signed contracts—fail to warrant a strong inference that the defendants “acted with intentional or reckless deception.” *Syneos Health*, 2023 WL 4688178, at *4. Instead, the defendants’ post-merger statements about contract bookings support an innocent inference: that the defendants believed they now had

²³ The plaintiffs emphasize a statement Chapman made in the call, alleging that he “concluded by emphatically refusing to identify customers behind the bookings, stating ‘[w]e are to date not going to break out the individual customer names because many of these [sic] actually covered by confidentiality process.’” ECF 64, ¶ 215. They contend he evaded analysts’ questions about the source of its triple contract bookings and that this evasion supports scienter. The cases the plaintiffs cite in support are distinguishable. In *Busic v. Orphazyme A/S*, No. 21 C 3640, 2022 WL 3299843, at *19 (N.D. Ill. Aug. 11, 2022), the CEO answered questions about whether a new clinical trial was necessary with nonresponsive answers that “they could be also like pharmacodynamic data.” In *In re Sanofi-Aventis Sec. Litig.*, 774 F. Supp. 2d 549, 571 n.28 (S.D.N.Y. 2011), the company gave a “directly nonresponsive” answer that avoided the question’s topic. And in *In re Terayon Commc’ns Sys., Inc. Sec. Litig.*, 2002 WL 989480, at *12 (N.D. Cal. Mar. 29, 2002), when asked about the fact that the company had a strong cease and desist letter, the CEO “stated that he had already made enough comments on the subject” rather than respond. Here, Chapman does not change the topic or refuse to answer the analyst’s questions. He explains IonQ’s choice to keep customers confidential. Viewed in context alongside Kramer’s earlier statements about the various sources of bookings, Chapman’s response is not the “directly nonresponsive” sort that these courts in other jurisdictions held supported scienter.

signaled to investors that their bookings guidance drew from multiple sources. That inference is more compelling than one ascribing wrongful intent to the defendants.

4) Conclusion

The plaintiffs have adequately pleaded scienter as to the pre-merger contract bookings statements, but not as to the post-merger ones.

b. Scienter as to the dMY defendants

The dMY defendants, in their motion to dismiss, advance additional arguments that the plaintiffs fail to adequately plead scienter as to them. The Court finds that the plaintiffs fail to raise a strong inference of scienter as to the dMY defendants for the reasons stated above and the ones that follow.

The amended complaint contains no particularized allegations that any dMY defendant had direct knowledge of or recklessly disregarded the alleged issues with IonQ's 32-qubit system, miniaturization, error fidelity, or contract bookings announcements. *See Matrix Cap.*, 576 F.3d at 182 (stating plaintiffs "must allege facts supporting a strong inference of scienter as to each defendant"). The plaintiffs offer the same generalized allegations related to the dMY defendants' high-ranking positions and the core operations doctrine as they did for the IonQ defendants. The only additional dMY-specific allegations to support an inference of scienter are: (1) De Masi's educational background; (2) extensive due diligence that the dMY defendants engaged in during the merger process; (3) De Masi's public statements about the contract bookings increase; and (4) their motive to profit from "founders' shares." Viewed holistically, these allegations do not raise a strong inference of scienter.

First, the plaintiffs point out that De Masi emphasized to investors that he has a master's degree in physics and has followed the quantum computing space for over 20 years. *See ECF 64*,

¶ 225(a). While courts recognize that an executive’s knowledge of a topic “might support an inference that he made a material misrepresentation” if he misspoke, say, about quantum computing principles, his background alone “does not necessarily suggest an intent to mislead.” *Maguire Fin.*, 876 F.3d at 548.

Second, though the plaintiffs point to numerous statements by the dMY defendants stressing their extensive due diligence of IonQ, they do not allege what information the dMY defendants supposedly learned, when they learned it, or how it was contradictory to any challenged statement. The Fourth Circuit recently considered an analogous argument in *Syneos Health*, where the plaintiffs’ scienter argument relied on circumstantial evidence regarding defendants’ “due diligence leading up to the merger.” 2023 WL 4688178, at *5. This circumstantial evidence

[fell] far short Plaintiffs ask us to infer specific knowledge from these due diligence meetings. But we can’t. That general due diligence occurred does not support the inference that Defendants learned any specific information Put different, Plaintiffs essentially assert that Defendants *should have known* about certain business facts given their diligence. But that proposition, in effect, merely argues that Defendants *negligently* performed due diligence. 10(b) requires at least recklessness.

Id. The plaintiffs here attempt to distinguish *Syneos Health* by arguing that they specifically allege the dMY defendants personally conducted extensive due diligence on IonQ for sixteen months and assured investors that their diligence was in-depth. But the Fourth Circuit’s concern was not with the length or the intensity of the due diligence efforts. It was that the plaintiffs had not pointed to “specific information” that the defendants learned from their diligence meetings and then failed to disclose. Here, too, the plaintiffs have not alleged with specificity what information the dMY defendants purportedly learned during their due diligence efforts.

Third, the plaintiffs only allege that one dMY defendant—De Masi—made any remarks about the contract bookings increase at all. Neither of the two occasions they point to suffices to

plead scienter. In the September 9 Bookings Release, De Masi said, “The demand for IonQ’s quantum computers has never been clearer.” ECF 64, ¶ 204. During the September 14 IPO Edge Chat, De Masi lauded Chapman and Kramer for the increase and said, “I don’t know a lot of IPO’s or companies in general that have literally increased in the middle of the year, the revenue, effectively monetization proxy by 200%, and it’s still only September If that doesn’t prove the quantum era is here, I’m not sure what does.” *Id.* ¶ 210. He added, “We’re striking partnerships with customers who care about solving problems today, and we’re just getting started.” *Id.* Unlike the IonQ defendants, De Masi did not attribute the bookings increase to cloud-based business users. Instead, De Masi made vague, anodyne remarks praising the revenue bump and IonQ, more like puffery than like statements of fact. *See Sinnathurai*, 2022 WL 17585715, at *18 (defining puffery as “loosely optimistic statements that are so vague, so lacking in specificity, or so clearly constituting the opinions of the speaker, that no reasonable investor could find them important to the total mix of information available” (quotation omitted)). That is not enough to plead that he intentionally or recklessly misled investors about the source of the new bookings.

Fourth, the plaintiffs allege that De Masi and You were motivated to inflate share prices due to their large founders’ shares. But as with the IonQ defendants, this generalized motive to “seek[] capital to support a risky venture” or “increase one’s own compensation” is applicable to all public companies. Without more, it cannot raise a strong inference of scienter. *Cozzarelli*, 549 F.3d at 627.

“A plaintiff may not stack inference upon inference to satisfy the PSLRA’s pleading standard.” *Maguire Fin.*, 876 F.3d at 548. The plaintiffs must instead, “state with particularity *facts* giving rise to a strong inference that the defendant acted with the required state of mind.” 15 U.S.C. 78u-4(b)(2) (emphasis added). The plaintiffs have failed to do so for the dMY defendants.

Viewed holistically, the innocent inference—that the dMY defendants sought to take Legacy IonQ public because they believed the statements about its technology were true—is more compelling than the malicious inference that these SPAC members knew IonQ’s claims were fraudulent but nevertheless pursued the merger.

2. Loss Causation

For the same reasons that the plaintiffs fail to adequately allege loss causation for their Section 14(a) claim, they fail to do so for their Section 10(b) claim.

Independently, the plaintiffs fail to adequately allege loss causation for the only Section 10(b) claim for which they adequately allege scienter: their contract bookings claim. The problem is simple. To plead loss causation, a plaintiff must allege “(1) . . . the revelation of new facts suggesting the defendant perpetrated a fraud on the market, and (2) that such exposure resulted in the decline of the defendant’s share price.” *Singer*, 883 F.3d at 445 (internal quotations omitted). But the plaintiffs do not plausibly allege that the Scorpion Report revealed new facts about IonQ’s contract bookings. The IonQ defendants disclosed in November 2021 that IonQ’s partnership with UMD was the main source of the company’s increased revenue. ECF 75-11, at 21; ECF 75-48, at 4. The Scorpion Report “disclosed” that fact the following May. ECF 64, ¶¶ 148–49, 221. By the time the report came out, the market already knew. Because the plaintiffs have not alleged that the report revealed new information about the bookings, their claim that the report’s statements about that topic caused their losses fails.

D. Section 20(a) claim

In the third count of the amended complaint, the plaintiffs allege secondary liability under Exchange Act Section 20(a) against the individual IonQ defendants, Chapman and Kramer. *Id.* ¶¶ 283–88. Under Section 20(a),

Every person who directly or indirectly, controls any person liable under any provision of this chapter or of any rule or regulation thereunder shall also be liable jointly and severally with and to the same extent as such controlled person to any person to whom such controlled person is liable . . . unless the controlling person acted in good faith and did not directly or indirectly induce the act or acts constituting the violation or cause of action.

15 U.S.C. § 78t(a). Thus, “the liability of a control person under section 20(a) is derivative of—and dependent upon—liability of a controlled person under Section 10(b).” *Singer*, 883 F.3d at 438; *In re Under Armour Sec. Lit.*, 540 F. Supp. 3d 513, 523 (D. Md. 2021) (noting that a Section 20(a) claim for controlling person liability must allege a predicate violation of Section 10(b)). Section 20(a) confers a private right of action on buyers and sellers of securities who trade “contemporaneously” with an insider in possession of material nonpublic information. *See* 15 U.S.C. § 78t-1(a).

The lead plaintiffs “predicate their § 20(a) claims only on their § 10(b) and § 14(a) claims.” *Syneos Health*, 2023 WL 4688178, at *8 n.11. Because both of those claims fail, “so too do [their] § 20(a) claims.” *Id.* (affirming dismissal of Section 20(a) claims where Section 10(b) and 14(a) claims were dismissed); *KBC Asset Mgmt.*, 19 F.4th at 608 (affirming dismissal because failure of Section 10(b) claim “dooms their [Section] 20(a) claim”).

V. Conclusion

For the foregoing reasons, the request for judicial notice is granted in part and denied in part. IonQ’s motion to dismiss is granted. dMY’s motion to dismiss is granted. A separate order follows.

September 28, 2023
Date



Deborah L. Boardman
United States District Judge